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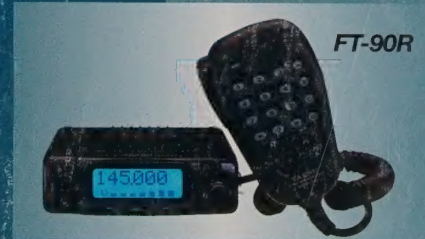
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## BY MANUFACTURER

AEA/TIMEWAVE .....	2, 28, 48
AES PRODUCTS .....	2, 28, 85
ADI/PREMIER/PRYME.....	2, 28, 56-58
AIM ELECTRONICS.....	3, 70, 88
ALINCO .....	3, 28, 42, 47, 50, 70, 87
ALPHA DELTA .....	3, 4, 28, 32, 92-95
AMECO .....	4, 28, 32, 68, 71, 80, 90
AMERITRON.....	4, 28, 73, 87, 90
AMIDON .....	4, 126
ANTENNAS AMERICA.....	4, 127
ANTENNA SPECIALISTS.....	4, 46, 129
ANTENNA SUPERMARKET .....	4, 32
AOR .....	2, 30
ARRL (QST) .....	2, 3, 29, 79-82
ARROW .....	4, 128
ARTSCI .....	4, 85
ASTATIC.....	4, 29, 58
ASTRON .....	4, 28, 29, 70
AZDEN .....	4, 28, 29
B&K.....	4, 5, 28, 29
B&W.....	5, 96
BMI.....	5, 32
BELDEN .....	5, 88, 130
BELMERIT.....	5, 76
BENCHER .....	5, 29, 68, 128
BIRD .....	5, 28, 76
BUCKMASTER.....	5, 29, 79
BUSHNELL .....	5, 6, 86
BUTTERNUT .....	6, 128
CES (Comm Electronics Spec) ..	6, 29, 32
CQ MAGAZINE .....	6, 79-81
CAMBRIDGE .....	6, 79
CASTLE RIDGE .....	6, 88
CENTAUR ELECTRONIC.....	6, 29, 90
CHANNEL MASTER.....	6, 29, 129
CHEROKEE .....	6, 29, 46, 50
COAX SEAL.....	6, 88
COBRA .....	6, 28, 29, 46
COMET 6, 7, 28, 29, 89, 90, 97-99,	126
COMMUNICATIONS SPECIALISTS.....	7, 29, 49
CONNECT SYSTEMS INC (CSI) .....	7, 29, 32, 49
COUGAR.....	7
COURIER .....	7, 8, 28, 29, 47
COYNE .....	8
CROSS DEVICE (CRS).....	8, 88
CUSHCRAFT.....	8, 28, 29, 100-113
CUTTING EDGE.....	8, 85
DAIWA .....	8, 29, 76, 90
DCI .....	8, 71
DC SALES.....	8, 89
DAVIS .....	8, 29, 43
DELORME.....	8, 45
DIAMOND ANTENNA.....	8, 9, 28, 29, 42, 70, 76, 89, 114-117
DIAMOND SYSTEMS .....	9, 80
DIGIMAX .....	9, 28, 29
DRAKE.....	9, 28, 29, 31, 50
EASY-UP .....	9
EDCO .....	9
FORBES GROUP.....	9, 129
FREEPLAY (BAYGEN) .....	9, 29, 43

GAMBER JOHNSON .....	9, 29, 85
GAP ANTENNAS.....	9, 10, 118
GARMIN .....	10, 29, 45
GENESYS .....	10, 29
GLEN MARTIN ENGINEERING.....	10, 131
GRACE, LL .....	10, 130
GROTHER ELECTRONICS.....	10, 29, 85
GROVE.....	10
GRUNDIG.....	10, 29, 30
HAL.....	10, 48
HARGER.....	10, 86
HEIL.....	10, 29, 55
HUSTLER ANTENNAS 10, 11, 28, 29, 46,	119-121
HY-GAIN/TELEX .....	11, 29
ICOM .... CII, CIV, 11-13, 28, 29, 31, 44,	47, 50, 52-54, 72, 87
IDIOM PRESS.....	13, 68
INTERFLEX SOFTWARE.....	13
INTERNATIONAL ANTENNAS ....	13, 128
ISOTRON.....	13, 29, 126
JPS.....	13, 28, 29, 71
JSC.....	13
K-COM .....	13, 71
KLM.....	13, 29
KACHINA.....	13, 14, 50
KANTRONICS .....	14, 28, 29, 45, 48, 80
KENWOOD .... 14, 15, 29, 44, 47, 59-61,	79, 80, 85
KOSS .....	15, 58
LARSEN ANTENNAS. 15, 28, 29, 46, 89,	122, 123
LOGSAT .....	15, 86
M2 .....	15, 124, 129
MBR INDUSTRIES .....	15, 44
MFJ.... 15-18, 28, 29, 31, 32, 48, 50, 58,	68-71, 77, 78, 83-85, 87, 89, 90, 129
MG ELECTRONICS.....	18
MAGELLAN.....	18, 29, 45
MAHA .....	18, 28, 29, 72, 75, 83
MALDOL.....	18
MAXON .....	18, 29, 43, 47
MIDLAND .....	18, 29, 43, 47
MIRAGE.....	18, 19, 28, 72, 74, 76, 90
MONITOR AMERICA.....	19, 42
MOTOROLA .....	19, 47
MANUFACTURER INFORMATION .....	
NCG .....	19, 28, 58, 70, 77, 84
NAVAL.....	19
NEW WAVE.....	19, 129
NORCOMM .....	19, 49
NYE VIKING .....	19, 71, 87
OAK BAY TECHNOLOGIES .... 19, 28, 71,	84, 89
OPTOELECTRONICS.....	19, 28
OREGON SCIENTIFIC .....	19, 43
OUTBACKER .....	19, 94
PACCOMM .....	19, 48
PALOMAR ENGINEERS.....	19, 28, 32, 77, 87
PAR ELECTRONICS .....	19, 71, 127
PATCOMM.....	19
PENETROX.....	19, 88
PERCON .....	19, 42

PERIPHEx .....	19, 28
PHILLIPS.....	19, 130
PIPO .....	19, 49
POLYPHASER.....	19, 20, 79, 89, 91
POUCH, The.....	20, 29, 84
PREMIER/PRYME.....	20, 56, 58
PRO AM by VALOR.....	20, 89, 125
QSL CARD HOLDERS .....	20
RF APPLICATIONS.....	20, 77
RF CONCEPTS .....	20, 28
RF INQUIRY .....	20, 70
RF LIMITED .....	20
RF PRODUCTS .....	20
RMS.....	20
RACOM .....	20
RADIO AMATEUR CALLBOOK 20, 79, 81	
RAMSEY .....	21
RANGER.....	21
ROHN .....	21, 131
ROSETTA.....	21
SGC .....	21, 28, 62-64, 72
SANGEAN .....	21, 30
SEQUOIA.....	21, 79, 80
SHAKESPEARE .....	21, 44
SHURE .....	21, 28, 58
SMILEY ANTENNA .....	21, 127
SOLARCON .....	21, 46, 127
SOLDER-IT .....	21
SONY .....	21, 30, 33-41, 43
STANDARD.....	21, 22, 28, 29
STARTEK.....	22, 28, 76, 84
SVETLANA .....	22, 84
SYNTHETIC TEXTILES.....	9, 88
TAB BOOK .....	22
TEXAS BUGCATCHER.....	22, 129
TIMEWAVE/AEA .....	2, 22, 28, 48
TRIPP LITE .....	22, 29, 70, 85
TUBES .....	22
TUNE BELT .....	22
US TOWER .....	22, 23, 132
UNADILLA/REYCO/WZAU.....	23, 28, 29, 90, 127
UNIDEN .....	23, 28, 29, 42, 44, 46
UNIFIED MICROSYSTEMS ....	23, 68, 85
UNIVERSAL TOWERS .....	23, 131, 133
VANCO .....	23, 77, 85
VAN GORDON.....	24, 88, 90, 128
VECTRONICS. 24, 28, 29, 50, 71, 77, 87	
VIBROPLEX .....	24, 29, 68
W5YI/WEST .....	24, 29, 80
WATFFL .....	24, 90
WAHL .....	24, 49
WALNUT CREEK .....	24, 79, 81
WELLER.....	24, 29, 49
WILSON .....	24, 46
X-10 .....	24, 43
YAESU CI, CIII, 24-26, 28-30, 44, 47, 50,	65-67, 72, 76, 89, 130
ZENITH.....	26, 71
ZM EXPRESSIONS.....	26

## BY PRODUCT TYPE

2m HT's.....	2, 3, 12, 13, 14, 22, 26, 27, 51, 53, 57, 59
440MHz HT's .....	2, 3, 14, 26, 51, 57
DUAL BAND HT'S .....	2, 3, 12, 13, 14, 21, 5, 22, 26, 51, 53, 57, 59, 61, 67
AMPLIFIERS ....	4, 11, 18, 19, 20, 25, 25, 64, 72-74
BASE ANTENNA'S ..	4-13, 15, 16, 19, 32, 42, 93, 94, 96, 97, 100-111, 114, 115, 118, 119, 121, 123, 124, 126-128
BATTERIES .....	2, 3, 12-14, 17-19, 21-23, 26, 75, 84
BOOKS.....	2-4, 6, 10, 16, 19-22, 24, 26, 42, 79, 80-82
CABLE.....	2, 3, 5, 6, 13, 24, 88
CLOCKS .....	5, 6, 16, 32
CLOSEOUTS.....	26, 27
CONNECTORS/WATERPROOF....	6, 7, 8, 19, 24, 88
DSP.....	13, 16, 22, 31, 48, 71
DUMMY LOADS 4, 5, 9, 16, 73, 77, 115	
DUPLEXERS.....	7, 9, 15, 17, 20, 25, 89, 115, 123
FAMILY RADIO.....	3, 6, 13, 15, 18, 19, 26, 47, 59
GPS UNITS .....	8, 10, 18, 45
HF RADIOS.....	3, 11, 13, 14, 17, 19, 21, 24, 25, 28, 29, 50, 51, 52, 59, 60, 62, 63, 66
HT ANTENNAS ..	7, 8, 13, 15, 16, 18, 20, 21, 56, 99, 115, 122, 125, 127-129
KEYERS/PADDLES ..	4, 5, 13, 15, 19, 24, 68
MARINE RADIOS & ANTENNAS ..	13, 15, 19, 21, 23, 44, 63, 94
METERS ..	5, 7, 8, 16, 18, 19, 20, 23, 24, 25, 76, 77, 88, 83
MOBILE ANTENNAS ..	4, 6-11, 14-16, 18-22, 24, 25, 46, 64, 87, 94, 99, 112, 116, 120-123, 125-127, 129
MOBILE 2M ..	2, 3, 9, 12, 14, 25, 26, 50, 53, 57, 59, 65
MOBILE 440.....	2, 3, 4, 13, 14, 57, 59
MOBILE DUAL BAND ..	3, 12, 14, 25, 51, 53, 59, CIV
PACKET .....	10, 14, 15, 16, 19, 22, 48
POWER SUPPLYS .....	3, 4, 9, 11, 12, 14, 17, 18, 21, 22, 24, 25, 26, 69, 70
PREAMPS .....	4, 12, 13, 16, 19, 24, 31, 32, 74
ROTORS .....	6, 15, 19, 26, 129, 130
SCANNERS.....	2, 3, 11, 12, 21, 23, 41, 42, 54
SECURITY/HOME AUTOMATION ..	24, 43
SHORTWAVE.....	2, 7, 9-12, 17, 21, 25, 30-41
SURGE/LIGHTNING DEVICES ..	3, 4, 8, 9, 10, 18, 19, 20, 22, 73, 86, 89-93, 113
TELESOPES .....	5, 86
TEST EQUIPMENT ...	4, 5, 22, 76, 77, 78
TONE ENCODERS/DECODE ..	7, 19, 49
TOOLS .....	3, 24, 49, 88
TOWERS.....	10, 21-23, 131-133
TUNERS ....	3, 4, 11, 14, 15, 19, 21, 25, 31, 62, 64, 73, 87
USED EQUIPMENT & DEMOS .....	28, 29
WEATHER INSTRUMENTS .....	8, 19, 43

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253 Practical Packet Radio	15.95	
254 1995 ARRL Periodicals CD-ROM	19.95	
256 QRP Power	12.00	
257 1996 ARRL Periodicals CD-ROM	19.95	
258 RF Exposure and You	15.00	
259 1997 ARRL Periodicals CD-ROM	19.95	
261 RFI Book	20.00	
262 Radio Buyer's Sourcebook volume 2	15.00	
263 1998 ARRL Periodicals CD-ROM	19.95	
264 Satellite Handbook	22.00	
265 Radiogram message blanks	2.00	
270 1999/2000 Repeater Directory	8.00	
272 1998/99 Repeater Directory	8.00	4 <sup>95</sup>
276 Satellite Anthology	12.00	
285 Set 1 5-10 wpm code practice cassettes	12.00	
290 Set 2 10-15 wpm code practice cassettes	12.00	
295 Set 3 15-22 wpm code practice cassettes	12.00	
301 10-15 wpm code practice audio CD	14.00	
302 15-22 wpm code practice audio CD	14.00	
303 5-10 wpm code practice audio CD	14.00	
305 Solid State Design	15.00	
308 Spread Spectrum Source Book	20.00	
314 Tech Q & A	12.95	
317 Technician Class Video Course	99.00	
318 Technician Course exam book only	19.00	
319 Technician Class Video Course w/software	129.00	
320 Transmitter Hunting	19.00	
322 TravelPlus for Rptrs 98/99 CD-ROM	39.95	29 <sup>95</sup>
323 TravelPlus for Repeaters 99/00 CD-ROM	39.95	
324 UHF/Microwave Project Manual vol 2	15.00	
325 USA Map	8.00	
328 Understanding Basic Electronics	20.00	
329 Vertical Antenna Classics	12.00	
332 VHF/UHF Radio Buyer's Source Book	12.00	
332 Weather Satellite Handbook	20.00	
343 WX Satellite Handbook companion software	10.00	
344 Wire Antenna Classics	14.00	
345 World Map	12.00	
347 Radio Amateurs World Atlas	9.95	
354 Your Mobile Companion	12.00	
356 Your VHF Companion	10.00	
357 Your Ham Antenna Companion	10.00	
358 Your Packet Companion	10.00	
361 Your HF Digital Companion	10.00	

## RSGB PUBLICATION

405 Radio Communications Handbook	\$ 38.00	
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## AIM (AIM)

24-7735P Coax stripper; RG-58/59/62	\$ 21.95	
24-7736P Coax stripper; RG-59/6/8281	21.95	
24-7739P Coax stripper; RG-8/11/213	28.95	
37-503 6-socket surge/EMI/RFI filt	29.00	9 <sup>95</sup>
38-305 500ma 3/4.5/6/7.5/9/12vdc adapter	9.95	
38-312 1.2A 1.5/3/4.5/6/7.5/9/12vdc adapt	29.95	
38-384 4A power supply, 5A surge	65.00	39 <sup>95</sup>
64-6UUP 6' RG-58 w/PL-259s	4.95	
64-9UUP 9' RG-58 w/PL-259s	5.95	
64-12UUP 12' RG-58 w/PL-259s	6.95	
64-18UUP 18' RG-58 w/PL-259s	7.95	

## ALINCO (ALI)

EDC-26 DC cord/cgr w/filter; EBP-10NA	\$ 17.95	12 <sup>95</sup>
EJ-6U Tone squelch unit; DJ-162TD	42.00	29 <sup>95</sup>
ESC-10 Case; DJ-162T w/EBP-10NA	21.00	4 <sup>95</sup>
DJ-C1T* 2m 300mw cc size HT/lith ion	199.95	69 <sup>95</sup>
DJ-C4T* 440 300mw cc size HT/lith ion	199.95	69 <sup>95</sup>
*No internal spkr DJ-C1T/DJ-C4T - must use earphone		
DJ-C5T 300mw cc size 2m/440 HT/lith ion	249.95	*169 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
EDC-36 Power cable w/filter	24.95	
EME-12 Headset w/earphone/mic/VOX	70.95	
EME-13 Headset w/ear bud/mic/VOX	70.95	
EME-16 Tie-pin mic & earphone	15.95	

## ALINCO - continued

	Reg	Sale
EME-17 Boom earphone mic	25.95	
EME-18 Earphone	10.95	
EDS-7 Mic adapt; EME-12/13/15/16/17/18	10.95	
EMS-49 Miniature lapel spkr/mic	35.95	
EMS-50 Speaker/mic	39.95	
DJ-180TH 5w 2m FM HT/batt/cgr/TTP	230.95	*149 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
DJ-280TH 5w 220 FM HT/batt/cgr/TTP	279.95	*164 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
EBC-3 Belt clip	5.95	
EBC-5 Shoulder belt w/soft case	54.00	19 <sup>95</sup>
EBP-24N 7.2v 1200ma batt; 180/580/582T	78.95	
EBP-26N 7.2v 700ma battery; 180/582	41.95	
EBP-28N 12v 700ma batt; 180/582	68.95	
EDC-43 Cig lighter cable	8.95	
EDC-45 Quick charger (not for F1)	83.95	
EDC-49 Batt cgr; EBP-20/22/24/26/28N	23.95	
EDH-11 AA alk pack; DJ-180/580/582T	10.95	
EDH-12 DC jack adapter; DJ-180/280TH	10.95	
EJ-12U Tone decode unit; DJ-F1T	51.95	29 <sup>95</sup>
EJ-14U 50 ch mem unit; DJ-180/280TH	21.95	
EJ-15U 200 ch mem unit; DJ-180TH	29.95	
EME-10 Headset/VOX/PTT; 160/560/580/582	71.95	49 <sup>95</sup>
EME-11 Ear/microphone w/PTT/VOX	52.95	
EMS-22 Spkr/mic; 160/560/580/582	44.95	32 <sup>95</sup>
EMS-51 Speaker/mic	39.95	
ESC-18 Soft case; 180TH/EBP-26N	14.95	
ESC-19 Soft case; 180TH/EBP-28N	18.95	
EBP-31N 7.2v 1200ma nicad; DJ-G1T	79.95	69 <sup>95</sup>
EBP-32N 12v 722ma nicad; DJ-G1T	95.95	79 <sup>95</sup>
EDC-52 Quick charger; DJ-G1T	119.00	89 <sup>95</sup>
EDC-55 Wall cgr; EBP30/31/32N; G1T	23.95	19 <sup>95</sup>
EDH-14 Dry cell battery case; DJ-G1T	15.95	12 <sup>95</sup>
EJ-16U Tone squelch unit; DJ-G1T	57.95	49 <sup>95</sup>
ESC-23 Soft case for EBP-30N; DJ-G1T	16.95	14 <sup>95</sup>
ESC-24 Soft case; EBP-31N/32N; G1T	21.95	16 <sup>95</sup>
DJ-191TH 5w 2m FM HT/batt/cgr/TTP	289.95	*169 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
DJ-G5TH 5w 2m/440 FM HT/EBP36N/cgr/TT	481.95	*279 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
EBC-6 Mobile bracket	16.95	
EBP-33N 4.8v 650ma nicad battery	63.95	
EBP-34N 4.8v 1200ma nicad battery	82.95	
EBP-35N 7.2v 900ma nicad battery	97.95	
EBP-36N 9.6v 650ma nicad battery	67.95	
EBP-37N 4.8v 700ma nicad battery	34.95	
EDC-16B Cigarette lighter cable w/filter	22.95	
EDC-36 Power cable w/filter	24.95	
EDC-60 Quick charger	78.95	
EDH-16 Dry cell battery case	10.95	
EJ-28U CTCSS decoder unit; DJ-191T/TH	42.95	
EME-6 Earphone	11.95	
EME-12 Headset w/earphone/mic/VOX	70.95	
EME-13 Headset w/ear bud/mic/VOX	70.95	
EMS-8Z Remote speaker/mic	48.95	
EMS-47 Spkr/mic w/volume control	24.95	
EMS-51 Speaker/mic	39.95	
ESC-28 Soft case for EBP-33N	10.95	
ESC-29 Soft case for EBP-37N	10.95	
ESC-30 Soft case for EBP-34N/35N/36N	10.95	
DJ-V5TH 5w 2m/440 FM HT/batt/cgr/TTP	349.95	279 <sup>95</sup>
DJ-S11T 340mw 2m FM HT/battery holder	149.95	*79 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
DJ-S41T 340mw 440 FM HT/battery holder	149.95	*79 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
EBC-6 Mobile bracket	16.95	
EDC-78 Wall charger; (not for alkalines)	7.95	
EDC-78/EBP-25N Cgr/3 AA nicad bundle	14.95	
EDH-18 12v to 5.5v DC/DC conv/cig plug	33.95	
EME-6 Earphone	11.95	
EME-13 Headset w/ear bud/mic/VOX	70.95	
EME-15 Headset/mic w/VOX	55.95	
EMS-47 Spkr/mic w/volume control	24.95	

## ALINCO - continued

	Reg	Sale
EMS-51 Speaker/mic	39.95	
ESC-27 Soft case	16.95	
DJ-X10T 1MHz-2GHz AM/FM/SB hand/cell bkld	559.95	*349 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
EBP-33N 4.8v 650ma nicad battery	63.95	
EBP-34N 4.8v 1200ma nicad battery	82.95	
EBP-37N 4.8v 700ma nicad battery	34.95	
EDC-16B Cigarette lighter cable w/filter	22.95	
EDC-36 Power cable w/filter	24.95	
EDC-37 13.8v power cable	7.95	
EDH-16 Dry cell battery case	10.95	
DR-M03SX 10w 10m FM Xcvt/TTP/encoder	249.95	*184 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
DR-M06TH 20w 6m FM Xcvt/TTP/encoder	351.95	*249 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
DR-140TQ 50w 2m FM/TTP/EJ20U tone sq	290.95	*174 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
DR-140TPKT 2m FM/1200 bps packet Xcvt	233.95	*174 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
DR-150TQ 50w 2m FM Xcvt/TTP/EJ20U tone sq	327.95	*229 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
CC-150 Cloning cable for DR-150TQ	14.95	
DR-430TQ 440 FM Xcvt/TTP/EJ-20U tone sq	307.95	*264 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
EJ-19U Memory expansion unit	28.95	
EJ-8U DTMF squelch; DR-590/592/599	47.95	39 <sup>95</sup>
DR-605TQ 50/35w 2m/440 FM/TT/EJ24U tone sq	537.95	*349 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
DR-610TQ 50/35w 2m/440 FM/TT/EJ24U tone sq	699.95	*449 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
EBC-8 Front control head bracket; 610TQ	16.95	
EDS-1 Junc box w/ext spkr, mic jacks; 610TQ	56.95	
EDS-2 3 meter ext cable; EDS-1/610TQ	23.95	
EDS-3 5 meter ext cable; EDS-1/610TQ	39.95	
EJ-23U Additional memory unit; 610TQ	35.95	
EMS-11 Extra TTP microphone	50.95	
DX-70T Compact HF Xcvt w/6m	957.95	*694 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
DX-70TH Comp HF Xcvt/100w 6m/mob bkt	1074.95	*784 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
DM-340MVT 30A power supply/35A surge	199.00	179 <sup>95</sup>
EBC-8 Front control head bracket	16.95	
EBC-9 Mobile bracket	32.95	
EDS-4 Rem mt acc kit w/5' cable, 2 covers	31.95	
EDS-5 Microphone extension cable	28.95	
EDS-6 15' remote cable	53.95	
EDX-1 Manual antenna tuner	299.00	269 <sup>95</sup>
EDX-2 160-10m 200w automatic ant tuner	344.00	319 <sup>95</sup>
EMS-14 Desk top microphone	113.95	
DX-77T 160-10m 12v base HF Xcvt	1059.95	*729 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
DM-340MVT 30A power supply/35A surge	199.00	179 <sup>95</sup>
EDS-5 Microphone extension cable	28.95	
EDX-1 Manual antenna tuner	299.00	269 <sup>95</sup>
EDX-2 160-10m 200w automatic ant tuner	344.00	319 <sup>95</sup>
EMS-14 Desk top microphone	113.95	
ERW-4 PC cable only for DX-77T	27.95	

## CONSUMER ELECTRONICS

DJ-S46 Family radio svc handheld/batt/cgr	\$ 149.95	*114 <sup>95</sup>
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\*Sale price w/instant coupon; coupon expires 5/31/99

## ALPHA DELTA (ALP)

R-T/N 200w thru 1 GHz type N protector	\$ 43.95	
Extra arc-plug cartridge; R-T/N	12.95	
HV/N 2kw thru 1 GHz type N protector	46.95	
Extra arc-plug cartridge; HV/N	15.95	
LT 200w thru 10m 'T' SO-239 protector	29.95	
Extra arc-plug cartridge for LT or LT/N	17.95	
RT/2G 200w 500 MHz lightning protector	39.95	
Extra arc-plug cartridge for RT/2G	12.95	
RT-N/2G 200w thru 1 GHz type N protector	46.95	
Extra arc-plug cartridge for RT-N/2G	12.95	
HV/2G 2kw 500 MHz lightning protector	44.95	



# PRICE GUIDE

## ALPHA DELTA - continued

Reg	Sale
Extra arc-plug cartridge for HV/2G .....	15.95
HV-N/2G 2kw thru 1 GHz type N protector .....	49.95
Extra arc-plug cartridge for HV-N/2G .....	15.95
Delta-2 500 MHz 2-pos coax switch/protector .....	49.95
Delta-2/N 1.3 GHz 2-pos type N switch/protector .....	64.95
Delta-4 500 MHz 4-pos coax switch/protector .....	79.95
Delta-4/N 1.3 GHz 4-pos type N switch/protector .....	89.95
D-4 Extra arc-plug; Delta-2/2N/4/4N .....	9.95
Delta-C Kit w/ctr ins/2 end ins/static protect .....	29.95
SEP Extra arc-plug cart; DX-Ultra/Delta-C .....	15.95
Delta-CIN Antenna end insulator .....	1.95
DH-1 Hydraulically dampened 41" fold mast/base .....	249.95
DH-2 Hydraulically dampened 41" fold mast/no base .....	229.95
DX-80 80m 134' complete dipole antenna .....	49.95
DX-40 40m 67' complete dipole antenna .....	39.95
DX-20 20m 34' complete dipole antenna .....	39.95
DX-A 160-80-40m twin sloper antenna .....	59.95
DX-B 160-80-40-30m 60' sloper ant .....	69.95
DX-CC 80-10m 5-band 82' no trap, no tuner dipole .....	119.95
DX-DD 80-40m 82' Delta Dipole antenna .....	89.95
DX-EE 40-10m 4-band 40' no trap, no tuner dipole .....	99.95
DX-LB 160-80-40m 100' shortened dipole .....	119.95
DX-LB Plus 160/80/40/20/15/10m 100' short dip .....	149.95
DX-SB 80/20m 38' short dipole .....	99.95
DX-SWL AM broadcast-13m 60' SWL sloper ant .....	79.95
DX-SWL-S 90-13m 40' SWL sloper .....	69.95
DX-Ultra AM broadcast-30MHz 80' SWL dipole .....	119.95
Outpost Base tripod mtg sys for mobile ant .....	199.95
SK-1 Straight Kent key .....	129.95
SP-1 Single paddle Kent key .....	139.95
TK-1 Titanic replica straight Kent key .....	149.95
TP-1 Twin paddle iambic Kent key .....	149.95
VRC Variable response speaker console .....	249.95
VRC-2 Ducted port bass reflex speaker .....	99.95

Also see OUTBACKER

## AMECO PUBLICATIONS (AME)

4-01 Code Course Instruction Booklet .....	\$ 2.00
6-01 Mastering the Morse Code .....	3.00
12-01 General Class FCC Test Manual .....	9.95
17-01 Extra Class FCC Test Manual .....	9.95
23-01 Novice Theory Course .....	9.95
26-01 Advanced Class FCC Test Manual .....	9.95
27-01 Novice Class FCC Test Manual .....	9.95
28-01 Technician Class FCC Test Manual .....	9.95
78-01 No Code Technician FCC Test Manual .....	12.95
102-01 Amateur Radio Theory Course .....	9.95
EN-1 Novice Class Exam .....	2.50
PC-12-01 General FCC learning software .....	24.95
PC-17-01 Extra FCC learning software .....	24.95
PC-26-01 Advanced FCC learning software .....	24.95
PC-27-01 Novice FCC learning software .....	24.95
PC-28-01 Technician FCC learning software .....	24.95
PC-78-01 No Code Tech FCC learning soft .....	29.95

## CODE COURSES - CASSETTE TAPES

100-T Junior code tape, 0-7½ wpm .....	\$ 5.95
101-T Senior code tapes, 0-18 wpm .....	10.95
103-T Advanced code tape, 8-18 wpm .....	5.95
104-T Extra Class code tape, 20 wpm .....	5.95
105-QT General Class QSO code course tape ..	5.95
106-QT Extra Class QSO code course tape ..	5.95
107-PC-2 IBM Morse Code Course, version 2.0 ..	29.95
NP-1 Novice Code & Theory Course .....	12.95

## CODE PRACTICE OSCILLATORS & CODE KEYS

K-1 Bakelite type key .....	\$ 10.95
K-4 Brass type key .....	16.95
OCM-2K Code oscillator & CW monitor kit .....	19.95
OCM-2W Wired oscillator & CW monitor .....	24.95

## PREAMPLIFIERS

TPA Tunable preamp & indoor active ant .....	\$ 76.95
P-9T Power supply for TPA .....	9.95
PT-3 2-54 MHz transceiver preamp .....	124.95
P-12T Power supply for PT-3 .....	9.95

## Reg Sale

## AMECO - continued

### DUMMY LOADS & FILTERS

DL-1500 1500w dummy load .....	\$ 59.95	39 <sup>95</sup>
DL-1500F 1500w dummy load w/fan .....	99.95	59 <sup>95</sup>
HP-75T 75 ohm high-pass filter .....	12.95	
HP-300T 300 ohm high-pass filter .....	12.95	

## AMERITRON (AMR)

AL-80B 1kw PEP out linear (3-500Z) .....	1299.00	1199 <sup>95</sup>
AL-82 1.5kw PEP out linear (2 3-500Zs) .....	2295.00	1999 <sup>95</sup>
AL-572 1.3kw PEP out linear (4 572Bs) .....	1395.95	1299 <sup>95</sup>
AL-800 1250w PEP out linear (3CX800A7) .....	1645.00	1529 <sup>95</sup>
AL-800H 1.5kw PEP out amp (2 3CX800A7) .....	2395.00	2199 <sup>95</sup>
AL-811 600w PEP out linear (3 811As) .....	649.00	599 <sup>95</sup>
AL-811H 800w PEP out linear (4 811As) .....	799.00	749 <sup>95</sup>
AL-1200 1.5kw PEP out linear (3CX-1200A7) ..	2295.00	1999 <sup>95</sup>
AL-1500 1.5kw PEP out linear (8877) .....	2845.00	2469 <sup>95</sup>
ALS-500M 600w PEP out solid state mob amp ..	799.00	699 <sup>95</sup>
ALS-600 700w PEP out solid state amp w/ps ..	1299.00	1129 <sup>95</sup>
ARB-702I Amplifier Xcvt interface; Icom .....	39.95	
ARB-702I2 Amp Xcvt interface; Ico 706&MkII ..	39.95	
ARB-702K Amplifier Xcvt interface; Kenwood ..	39.95	
ARB-702Y Amplifier Xcvt interface; Yaesu .....	39.95	
ATP-100 Amplifier tuning pulser .....	49.95	
ATP-102 Deluxe amplifier tuning pulser .....	59.95	
ATR-15 1.5kw PEP antenna tuner .....	399.00	369 <sup>95</sup>
ATR-30 3kw PEP antenna tuner .....	599.95	549 <sup>95</sup>
ADL-1500 1.5kw dummy load with oil .....	59.95	
ADL-2500 2.5kw dummy load with fan .....	199.95	189 <sup>95</sup>
AV-620 20/17/15/12/10/6m vertical antenna ..	269.95	
ICP-120 120v inrush protector .....	79.95	
ICP-240 240v inrush protector .....	79.95	
AWM-30 3kw PEP SWR/wattmeter/rem sens ..	149.95	139 <sup>95</sup>
QSK-5 Stand alone T/R switch .....	349.00	329 <sup>95</sup>
QSK-5PC PC board kit; T/R switch .....	249.00	229 <sup>95</sup>
CF-5 Cooling fan for QSK-5 .....	39.95	
RCS-4 4-pos wireless remote coax switch .....	139.00	129 <sup>95</sup>
RCS-8V 160-2m 5-pos remote coax switch ..	149.00	139 <sup>95</sup>
RCS-8VN 160-2m 5-pos N rem coax switch ..	159.00	149 <sup>95</sup>

Note: RCS-8V/VN require 8-wire control cable.

## AMIDON (AMI)

1:1-HB50 W2FMI 1:1 dipole/beam balun .....	\$ 49.95
1.5:1-HB75 W2FMI 1.5:1 dipole balun .....	69.95
2:1-HB100 W2FMI 2:1 dipole/quad loop balun ..	69.95
4:1-HB50 W2FMI 4:1 direct connect beam balun ..	49.95
4:1-HB200 W2FMI 4:1 folded dipole/LP balun ..	49.95
4:1-HB/U200 W2FMI 4:1 off center fed balun ..	69.95
4:1-HBHT200 W2FMI 4:1 G5RV/LP ladder line balun ..	69.95
6:1-HB300 W2FMI 6:1 300 ohm folded dip balun ..	69.95
6:1-HB/U300 W2FMI 6:1 off center fed balun ..	89.95
9:1-HB450 W2FMI 9:1 twin lead balun .....	89.95
12:1-HB600 W2FMI 12:1 rhombic/V-beam balun ..	199.95
1.5:1-HU75 W2FMI 75:50 ohm unun .....	49.95
1.56:1-HDU50 W2FMI 50:32&18 ohm unun ..	49.95
1.78:1-HDU50 W2FMI 50:28&12.5 ohm unun ..	49.95
1.78:1-HMMU50 W2FMI multimatch unun .....	69.95
2:1-HDU50 W2FMI 50:22&25 ohm unun .....	49.95
2:1-HDU100 W2FMI 100&112.5:50 ohm unun ..	49.95
4:1-HCU50 W2FMI 50:12.5 ohm unun .....	49.95
9:1-HU50 W2FMI 50:5.56 ohm unun .....	49.95
BEV-U50 W2FMI Beverage antenna unun .....	69.95
RFI-KIT-5 Ferrite/toroid RFI kit .....	30.95
RFI-KIT-6 Ferrite/toroid RFI kit .....	35.95

## Antenna Specialists (ASP)

AP-143 2m on glass cellular look-alike ant .....	\$ 78.25	69 <sup>95</sup>
APR151.3 2m 3db on glass antenna .....	75.00	69 <sup>95</sup>
KAV-382 On glass replacement mtg kit .....	11.95	
M-906 Cellular style on glass CB antenna ..D	62.50	59 <sup>95</sup>
MONR31 L/H/U gain gnd plane monitor ant ..	107.37	89 <sup>95</sup>
MONR33 L/H/U roof mt low prof monitor ant ..	53.95	
MONR51 L/H/U magnet mt monitor antenna ..	62.95	
MON-52 L/H/U/800MHz trunk lip monitor ant ..	65.95	

## Reg Sale

## ANTENNA SPEC - continued

MON-63 Coupler for scanner on car antenna ..	26.95
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## Antennas America (ANA)

HVA-146 75w 2m disguised decal antenna ..	\$ 69.95
HVA-460 75w 440 disguised decal antenna ..	69.95

## Antenna Supermarket (ANT)

Eavesdropper* 60-11m trap dipole SWL ant ..	\$ 79.95
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\*Specify SO-239 or twin-lead

## ARROW Antenna (ARA)

146/437-10 3 el 2m/7 el UHF handheld beam ..	\$ 73.95
10w duplexer (installs in boom) .....	59.95

## ARTSCI (ART)

Amateur Handbook .....	\$ 14.95
Simpleton's Handy Reference book .....	2.00
Lost Users Manuals .....	19.95
US Repeater Y2K Mapbook 99/2000 edition ..	9.95

## ASTATIC (AST)

10DA-L Dynamic mic head (no stand or cable) ..	\$ 69.99
D-104-L Crystal mic head (no stand or cable) ..	42.99
T-U69 Amplified desk stand .....	52.95
Night Eagle Brass/black crystal desk mic .....	129.99
T-U69-D104 Amp mic, 6-wire w/stand .....	99.99
T-UP9-D104-SE Silver Eagle 6-wire amp .....	129.99
MC-320 Crystal mic cartridge for D-104 .....	19.99

## ASTRON (ASR)

RS-4L 3A ps, 4A surge, w/cig lighter socket ..	\$ 57.95	49 <sup>95</sup>
RS-7A 5A power supply, 7A surge .....	68.95	59 <sup>95</sup>
RS-10A 7.5A power supply, 10A surge .....	85.95	69 <sup>95</sup>
RS-12A 9A power supply, 12A surge .....	99.95	79 <sup>95</sup>
RS-12S 9A ps, 12S 9A surge, w/speaker .....	112.95	89 <sup>95</sup>
RS-20A 16A power supply, 20A surge .....	121.95	99 <sup>95</sup>
RS-35A 25A power supply, 35A surge .....	197.95	149 <sup>95</sup>
RS-35A/220V 220v 25A ps, 35A surge .....	217.75	169 <sup>95</sup>
RS-50A 37A power supply, 50A surge .....	285.95	219 <sup>95</sup>
RS-70A 57A power supply, 70A surge .....	339.95	259 <sup>95</sup>
RS-20M 16A ps w/meters, 20A surge .....	144.95	119 <sup>95</sup>
RS-35M 25A ps w/meters, 35A surge .....	204.95	169 <sup>95</sup>
RS-50M 37A ps w/meters, 50A surge .....	314.95	239 <sup>95</sup>
RS-70M 57A ps w/meters, 70A surge .....	372.95	289 <sup>95</sup>
VS-20ML Variable 16A ps/meters, 20A surge ..	170.95	139 <sup>95</sup>
VS-35M Variable 25A ps/meters, 35A surge ..	238.95	189 <sup>95</sup>
VS-50M Variable 37A ps/meters, 50A surge ..	330.95	259 <sup>95</sup>
RM-35M 25A rack mt ps/meters, 35A surge ..	318.95	249 <sup>95</sup>
RM-50M 37A rack mt ps/meters, 50A surge ..	354.95	279 <sup>95</sup>
RM-60M 50A rack mt ps/meters, 55A surge ..	467.95	359 <sup>95</sup>
SS-25 20A switching ps, 25A surge .....	131.60	109 <sup>95</sup>
SS-30 25A switching ps, 30A surge .....	144.00	119 <sup>95</sup>
SS-25M 20A switching ps/meters, 25A surge ..	159.50	129 <sup>95</sup>
SS-30M 25A switching ps/meters, 30A surge ..	171.90	139 <sup>95</sup>
12/115 200w solid state 12vdc-115vac inverter ..	86.95	69 <sup>95</sup>
2412 9A 22-32vdc to 13.8vdc converter .....	60.30	44 <sup>95</sup>
N2412-12 9A 22-32vdc to 13.8vdc converter ..	60.30	49 <sup>95</sup>
N2412-24 16A 22-32vdc to 13.8vdc converter ..	89.75	79 <sup>95</sup>

## AZDEN (AZD)

PCS-9600D 35w 440 FM/9600 baud .....	D	569 <sup>95</sup>
TS-32P Tone decoder .....	D	49 <sup>95</sup>
AD-16 DC power cord for HT .....	D	7 <sup>95</sup>
BP-11A Extra 5w battery for HT .....	D	59 <sup>95</sup>
HS-03 Boom mic/headphones; HF Xcvt .....	D	39 <sup>95</sup>
LC-16 Soft case for HT .....	D	14 <sup>95</sup>
PTT-01 Switch; boom mic/headphones .....	D	29 <sup>95</sup>

## B & K (B&K)

330 750A AC multi-function clamp meter ..Δ	\$ 89.00	59 <sup>95</sup>
541 Component comparator .....	D	449.00
815 Tester (cap/res/Hfe/diode/batt) .....	Δ	99.95
830 Autoranging capacitance meter .....	Δ	339.00
1646 0-16V, 0-10A power supply .....	D	499.00
2831A Digital bench multimeter .....	Δ	299.00



## B & K - continued

	Reg	Sale
3001 Audio generator .....	79.95	49 <sup>95</sup>
<b>BMI (BMI)</b>		
972A 12" 12-hour wall clock .....	\$ 28.95	
972AD 14" 12/24-hour wall clock .....	32.95	
973A 12" 24-hour wall clock .....	49.95	
Nitelogger II Auto recorder activator .....	69.95	
RC-1A Impedance matching patch cord .....	19.95	

## B & W (B&W)

### LOW-PASS FILTER

FL-10/1500 1.5-30 MHz, 1kw, 52 ohms .....	D	\$ 75.95
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### ANTENNAS

AP-10 51" portable 40/20/15/10/6/2m ant ..	\$ 69.95	
AT-55 40/20/15/10m 55' trap antenna .....	87.95	82 <sup>95</sup>
AT-110 80/40/20/15/10m 110' trap antenna .....	99.50	94 <sup>95</sup>
AS-160 160/80/40/20m 137' trap dipole .....	164.50	154 <sup>95</sup>
AS-80 80/40/20m 78' trap dipole .....	127.50	119 <sup>95</sup>
AS-40 40/20/15/10m 40' trap dipole .....	164.50	154 <sup>95</sup>
AS-20 20/15/10m 20' trap dipole .....	127.50	119 <sup>95</sup>
AC-1.8-30 Continuous 1.8-30 MHz antenna ..	198.00	179 <sup>95</sup>
ACS-1.8-30 Continuous 1.8-30MHz stainless ant	298.00	269 <sup>95</sup>
AC-5-30 Continuous 5-30 MHz 65' antenna ..	198.00	179 <sup>95</sup>
ACS-5-30 Continuous 5-30 Mhz stainless ant	298.00	269 <sup>95</sup>
ASW-90 500 KHz - 30 MHz 90' receive only ant	98.50	94 <sup>95</sup>
AXS-160 160/30m 96' trap dipole .....	99.50	94 <sup>95</sup>
AXS-80 80/40/15m 65' trap dipole .....	127.50	119 <sup>95</sup>
BWD-1.8-30 1.8-30 MHz 90' folded dipole ...	198.00	179 <sup>95</sup>
BWDS-1.8-30 1.8-30 stainless 90' folded dip	298.00	269 <sup>95</sup>

## BELDEN (BEL)

### 52 OHM COAXIAL CABLE

8216 RG-174 (sub-miniature) .....	per ft.	26¢
8216 .....	100 ft. Roll	37.29 24 <sup>95</sup>
8216 .....	500 ft. Roll	129.87 89 <sup>95</sup>
8216 .....	1000 ft. Roll	259.74 169 <sup>95</sup>
9201 RG-58 (solid center) .....	per ft.	20¢
9201 .....	100 ft. cut	29.74 18 <sup>95</sup>
9201 .....	500 ft. Roll	109.89 79 <sup>95</sup>
9201 .....	1000 ft. Roll	216.45 139 <sup>95</sup>
8240 RG-58U (solid center) .....	per ft.	26¢
8240 .....	100 ft. Roll	38.20 24 <sup>95</sup>
8240 .....	500 ft. Roll	131.00 89 <sup>95</sup>
8240 .....	1000 ft. Roll	262.00 169 <sup>95</sup>
8259 RG-58AU (stranded center) .....	per ft.	29¢
8259 .....	100 ft. Roll	43.00 26 <sup>95</sup>
8259 .....	500 ft. Roll	137.00 89 <sup>95</sup>
8259 .....	1000 ft. Roll	276.00 169 <sup>95</sup>
8219 RG-58AU (stranded, foam) .....	per ft.	33¢
8219 .....	100 ft. Roll	57.25 29 <sup>95</sup>
8219 .....	500 ft. Roll	155.00 99 <sup>95</sup>
8219 .....	1000 ft. Roll	387.50 189 <sup>95</sup>
8262 RG-58C (non-contaminating) .....	per ft.	36¢
8262 .....	100 ft. cut	32 <sup>95</sup>
8262 .....	500 ft. Roll	173.00 119 <sup>95</sup>
8262 .....	1000 ft. Roll	346.00 219 <sup>95</sup>
9258 RG-8X (stranded, foam) .....	per ft.	39¢
9258 .....	100 ft. cut	81.25 34 <sup>95</sup>
9258 .....	500 ft. Roll	217.56 129 <sup>95</sup>
9258 .....	1000 ft. Roll	490.00 239 <sup>95</sup>
8237 RG-8U .....	per ft.	64¢
8237 .....	100 ft. Roll	102.00 59 <sup>95</sup>
8237 .....	500 ft. Roll	390.00 249 <sup>95</sup>
8214 RG-8U (foam) .....	per ft.	59¢
8214 .....	100 ft. Roll	101.00 54 <sup>95</sup>
8214 .....	500 ft. Roll	452.00 259 <sup>95</sup>
8214 .....	1000 ft. Roll	898.00 489 <sup>95</sup>
9913 RG-8U (low loss) .....	100 ft. Roll	113.00 59 <sup>95</sup>
9913 .....	250 ft. Roll	244.00 129 <sup>95</sup>
9913 .....	500 ft. Roll	486.00 239 <sup>95</sup>
9913F RG-8U (low loss, flexible) .....	per ft.	87¢

## BELDEN - continued

9913F .....	100 ft. Roll	134.00 79 <sup>95</sup>
9913F .....	250 ft. Roll	289.00 159 <sup>95</sup>
9913F .....	500 ft. Roll	575.00 299 <sup>95</sup>
9251 RG-8A (non-contaminating) .....	per ft.	87¢
9251 .....	100 ft. Roll	132.09 79 <sup>95</sup>
9251 .....	500 ft. Roll	492.84 299 <sup>95</sup>
8267 RG-213 (non-contaminating) .....	per ft.	87¢
8267 .....	100 ft. cut	79 <sup>95</sup>
8267 .....	500 ft. Roll	597.18 349 <sup>95</sup>
8242 RG-9U (double shielded) .....	per ft.	4 <sup>95</sup>
8242 .....	100 ft. Roll	715.00 349 <sup>95</sup>
<b>75 OHM COAXIAL CABLE</b>		
8241 RG-59U (73 ohm, solid center) .....	per ft.	29¢
8241 .....	100 ft. Roll	44.00 25 <sup>95</sup>
8241 .....	500 ft. Roll	123.00 79 <sup>95</sup>
8241 .....	1000 ft. Roll	246.00 149 <sup>95</sup>
8238 RG-11 (75 ohm, stranded center) .....	per ft.	79¢
8238 .....	100 ft. cut	124.32 74 <sup>95</sup>
8238 .....	500 ft. Roll	470.64 279 <sup>95</sup>
8213 RG-11 (75 ohm, solid, foam) .....	per ft.	69¢
8213 .....	100 ft. cut	59 <sup>95</sup>
8213 .....	500 ft. Roll	360.00 239 <sup>95</sup>

### ROTOR CABLE

8484 4-wire; 4-20 ga; U-105 .....	per ft.	28¢
8484 .....	100 ft. cut	48.00 24 <sup>95</sup>
8484 .....	500 ft. Roll	185.00 99 <sup>95</sup>
8484 .....	1000 ft. Roll	370.00 189 <sup>95</sup>
8448 8-wire; 2-18, 6-22 ga; .....	per ft.	29¢
8448 .....	100 ft. cut	103.75 24 <sup>95</sup>
8448 .....	500 ft. Roll	412.50 119 <sup>95</sup>
8448 .....	1000 ft. Roll	820.00 229 <sup>95</sup>
9405 8-wire; 2-16, 6-18 ga; .....	per ft.	69¢
9405 .....	100 ft. cut	64 <sup>95</sup>
9405 .....	500 ft. Roll	585.00 299 <sup>95</sup>
9405 .....	1000 ft. Roll	1167.50 569 <sup>95</sup>

### ANTENNA WIRE

8000 No. 14 stranded ant wire .....	per ft.	21¢
8000 .....	100 ft. Roll	30.50 17 <sup>95</sup>
8000 .....	1000 ft. Roll	275.00 159 <sup>95</sup>

### No. 8 ALUMINUM GROUND WIRE

8018 Multiples of 50 ft. ....	each	\$ 19.00 12 <sup>95</sup>
8018 .....	500 ft. Roll	150.00 99 <sup>95</sup>

Note: All above roll pricing is for rolls as shown only; all other lengths, even if more than roll length shown or a multiple of roll length shown, are sold at the per ft. price.

### FOAM COAX w/PL-259s ON BOTH ENDS

9349 3' RG-58AU foam .....	\$ 19.32 14 <sup>95</sup>
9350 15' RG-58AU foam .....	21.63 16 <sup>95</sup>
9352 50' RG-58AU foam .....	32.13 24 <sup>95</sup>
9354 50' RG-8U foam .....	60.90 46 <sup>95</sup>
9355 75' RG-8U foam .....	84.00 64 <sup>95</sup>
9356 100' RG-8U foam .....	101.85 79 <sup>95</sup>

## BELMERIT (BLM)

DM-80 Credit card size multimeter w/case ...	\$ 34.95
DX-355 True RMS+20MHz freq multimeter ...	74.95
DX-405 10 func/39 range+20MHz freq multimeter	69.95

## BENCHER (BEN)

BY-1 Iambic keyer paddle w/black base .....	\$100.00 94 <sup>95</sup>
BY-2 Iambic keyer paddle w/chrome base .....	115.00 109 <sup>95</sup>
BY-3 Iambic keyer paddle, gold plated .....	325.00 279 <sup>95</sup>
BY-4 Iambic paddle/blk base/gold components	170.00 149 <sup>95</sup>
170-82 Merc paddle ..drop ship; mfrgr will engrave call	495.00 449 <sup>95</sup>
ST-1 Single lever keyer paddle, black base ...	100.00 94 <sup>95</sup>
ST-2 Sgl lever kyr paddle, chrome base .....	115.00 109 <sup>95</sup>
ST-3 Single lever kyr paddle, gold plated .....	299.95 189 <sup>95</sup>
RJ-1 Dlx hand key w/navy knob/black base ..	95.95
RJ-2 Dlx hand key w/navy knob/chrome base	110.95
XW-1 Low voltage DC fuse panel .....	75.95

## BENCHER - continued

XW-20 Fuse kit .....	5.95
XW-39/XW-30 Crimp terminal kit .....	3.95
XW-40 Screw terminal kit .....	4.95
YA-1 1kw low pass filter .....	70.95
ZA-1A 3.5-30 MHz 1:1 balun .....	40.95
HWK Hardware kit; ZA-1A for 2" boom .....	9.95

## BIRD (BIR)

43 Thru-line Directional wattmeter, SO-239s ..	\$276.95
4300-400 Peak reading conversion kit .....	131.95
43P Peak reading directional meter, SO-239s ..	416.95
4431 Wattmeter, variable RF tap, SO-239s ...	487.95
Elements (Table 1) 50H-1000H .....	each 92.95
Elements (Table 1) 2500H, 5000H .....	each 132.95
Elements (Table 1) 25-1000 MHz .....	each 75.95
Low-power elements (Table 2) .....	each 100.95

TABLE 1 - Standard Elements

Power Range	Frequency Bands (MHz)					
	2-30	25-60	50-125	100-250	200-500	400-1000
5 watts	—	5A	5B	5C	5D	5E
10 watts	—	10A	10B	10C	10D	10E
25 watts	—	25A	25B	25C	25D	25E
50 watts	50H	50A	50B	50C	50D	50E
100 watts	100H	100A	100B	100C	100D	100E
250 watts	250H	250A	250B	250C	250D	250E
500 watts	500H	500A	500B	500C	500D	500E
1000 watts	1000H	1000A	1000B	1000C	1000D	1000E
2500 watts	2500H					
5000 watts	5000H					

TABLE 2 - Low-Power Elements

1 watt	Cat. No.	2.5 watts	Cat. No.
25-30 MHz	025-1	25-30 MHz	025-2
30-35 MHz	030-1	30-40 MHz	030-2
35-40 MHz	035-1	40-50 MHz	040-2
40-50 MHz	040-1	50-60 MHz	050-2
50-60 MHz	050-1	60-80 MHz	060-2
60-80 MHz	060-1	80-95 MHz	080-2
80-95 MHz	080-1	95-150 MHz	095-2
95-125 MHz	095-1	150-250 MHz	150-2
110-160 MHz	110-1	200-300 MHz	200-2
150-250 MHz	150-1	250-450 MHz	250-2
200-300 MHz	200-1	400-850 MHz	400-2
275-450 MHz	275-1	800-1000 MHz	801-2
425-850 MHz	425-1		
800-1000 MHz	801-1		

CC-1 Carrying case; wattmeter/6 elements ..	48.95
EC-1 Case for 12 elements .....	38.95

80F 5w dummy load w/N female .....	D	72.00 49 <sup>95</sup>
25-T-MN 50w dummy load w/type N male ....		100.95
50-T-MN 50w dummy load w/type N male ....		145.95

4275 20-1000 MHz variable RF sampler* .....		134.95
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\*2 QC connectors required - not included

4275-100 For Bird equipment installation ..D		144.95
4304A 25-1000 MHz 500w wattmeter .....		545.95

### QUICK CHANGE CONNECTORS (QC)

4240-050 UHF female (SO-239) .....	each	\$ 8.95
4240-179 UHF male (PL-259) .....	each, Δ	48.00 39 <sup>95</sup>
4240-062 Type N female .....	each	8.95
4240-063 Type N male .....	each, Δ	21.00 14 <sup>95</sup>
4240-125 BNC female .....	each	21.95
4240-132 BNC male .....	each, Δ	59.00 9 <sup>95</sup>
4240-160 TNC male .....	each, Δ	25.00 19 <sup>95</sup>

Other Bird items available on special order

## BUCKMASTER (BUC)

HamCall CD-ROM ham listings .....	\$ 50.00
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## BUSHNELL (BUS)

78-0040 90mm refractor telescope .....	\$995.00 439 <sup>95</sup>
78-0103 1.25" erecting prism .....	91.95 69 <sup>95</sup>
78-0200 4.5" reflector telescope .....	795.00 349 <sup>95</sup>
78-6000 6" Dobsonian reflector telescope ....	563.95 299 <sup>95</sup>
78-8000 8" Dobsonian reflector telescope ....	743.95 399 <sup>95</sup>



# PRICE GUIDE

## BUSHNELL - continued

	Reg	Sale
78-9440 60mm refractor telescope .....	161.95	89 <sup>95</sup>
78-9470 60mm refractor telescope w/zoom ..	227.95	129 <sup>95</sup>
78-9675 4.5" reflector telescope .....	421.95	229 <sup>95</sup>
78-0101 1.25" 9mm Kellner eyepc; 0040/6000/8000	45.95	29 <sup>95</sup>
78-0102 1.25" 25mm Kellner eyepiece .....	45.95	29 <sup>95</sup>
78-0105 1.25" 2x Barlow lens; 0040/0200/6000/8000	54.95	39 <sup>95</sup>
78-0106 DC/batt clock drive; 0040/0200/9675	143.95	89 <sup>95</sup>

## BUTTERNUT (BUT)

	Reg	Sale
Skyhawk 3X10 20-15-10m 10el, 24' boom/balun	\$995.00	869 <sup>95</sup>
HF-6VX 80/40/30/20/15/10m 26' vert ant ...	375.00	299 <sup>95</sup>
HF-9VX 80/40/30/20/17/15/12/10/6m vert ...	450.00	369 <sup>95</sup>
A17-12 17 & 12m kit for HF-6VX .....	60.95	
CPK Counterpoise kit .....	130.00	119 <sup>95</sup>
MPS Mounting post sleeve .....	9.95	
RMK-II Roof mounting kit w/radials .....	160.00	149 <sup>95</sup>
STR-II Radial kit only .....	120.00	109 <sup>95</sup>
TBR-160S 160m resonator .....	125.00	114 <sup>95</sup>
HF-2V 80/40m 32' vertical .....	270.00	229 <sup>95</sup>
30-MRK 30m resonator for HF-2V .....	100.95	
TBR-160S 160m resonator .....	125.00	114 <sup>95</sup>
HF-5B 2 el 20/17/15/12/10m butterfly beam	595.00	479 <sup>95</sup>
P-5 1:1 balun .....	65.95	59 <sup>95</sup>

## CES (CES)

	Reg	Sale
410 Personal Patch interconnect .....	D \$250.00	119 <sup>95</sup>
4700VP Telephone interconnect .....	† 292.00	169 <sup>95</sup>
SDI-50 Dlx splx/dplx autopatch/rptr controller	760.00	469 <sup>95</sup>

## CQ (CQX)

	Reg	Sale
1999 Amateur Radio Calendar .....	\$ 9.95	
1999 Radio Classics Calendar .....	9.95	
33 Simple Weekend Projects .....	15.95	
Amateur Radio Almanac .....	19.95	
Building and Using Baluns and Ununs .....	19.95	
Buyers Guide .....	15.95	
Contest Video Getting Started in Contesting	19.95	
DXing Video Getting Started in DXing .....	19.95	
Ham Sat Video Getting Started Amateur Satellites	19.95	
Ham Video Getting Started in Ham Radio ...	19.95	
Lew McCoy on Antennas .....	15.95	
Packet Radio Operator's Manual .....	15.95	
Packet Video Getting Started in Packet Radio	19.95	
Quad Antenna Book .....	15.95	
Shortwave Propagation Handbook .....	19.95	
Vertical Antenna Handbook .....	9.95	
VHF How To Book .....	15.95	
VHF Video Getting Started in VHF .....	19.95	
W6SAI HF Antenna Handbook .....	19.95	

## CAMBRIDGE (CAM)

The Art of Electronics (book) .....	\$ 59.95
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## CASTLE RIDGE (CRO)

### SOLID BASE COPPERWELD ANTENNA WIRE

	Reg	Sale
AN-122 100 feet No. 12 .....	\$ 24.95	
AN-123 150 feet No. 12 .....	34.95	
AN-124 250 feet No. 12 .....	49.95	
AN-126 500 feet No. 12 .....	89.95	
AN-128 1000 feet No. 12 .....	159.95	149 <sup>95</sup>
AN-142 100 feet No. 14 .....	19.95	
AN-143 150 feet No. 14 .....	24.95	
AN-144 250 feet No. 14 .....	34.95	
AN-146 500 feet No. 14 .....	59.95	
AN-148 1000 feet No. 14 .....	114.95	104 <sup>95</sup>
AN-181 250 feet No. 18 .....	14.95	
AN-182 500 feet No. 18 .....	24.95	

## CENTAUR (CEN)

	Reg	Sale
B11W10-50 1:1 3kw PEP balun for dipole ...	\$ 49.95	
B11Y10-50 1:1 3kw PEP balun for yagi .....	49.95	
B41Y10-50 4:1 3kw PEP balun for yagi .....	64.95	
B41LW10-50 4:1 ladder line to coax balun ...	64.95	

## Reg Sale

## CHANNEL MASTER (CHA)

9515 HD TV/small ham beam (VHF/UHF) rotor	129 <sup>95</sup>
9521 Prog light duty ant rotor/IR rem cont ...	99 <sup>95</sup>

## CHEROKEE (CHR)

	Reg	Sale
AH-50SF 5w 6m FM HT/batt/select offset ..†	\$449.95	149 <sup>95</sup>
AH-27 Handheld CB .....	169.95	119 <sup>95</sup>
BC-09 6 AA cell battery holder .....	13.95	
BC-12 8 AA cell battery holder .....	17.95	
CC-27 Leatherette case .....	13.95	
DA-27 12v slide-on adapt; BC-09/NP-126 ..	13.95	
DC-27 Drop-in nicad charger .....	79.95	
DW-12 Wall charger .....	7.95	
EX-01 Speaker/mic .....	29.95	
MA-27 Mobile-com cig/ext ant adapter .....	44.95	
NP-126 12v nicad battery .....	69.95	
SA-5 Extended super flex 6m antenna .....	24.95	
AH-100 SSB/AM handheld CB .....	399.95	279 <sup>95</sup>
CBS-1000 SSB/AM Base CB .....	449.95	299 <sup>95</sup>

## CLOCKS

	Reg	Sale
BMI 972A 12" 12-hour wall clock .....	\$ 28.95	
BMI 972AD 14" 12/24-hour wall clock .....	32.95	
BMI 973A 12" 24-hour wall clock .....	49.95	
MFJ 105C 24-hour quartz wall clock .....	19.95	
MFJ 107B 24-hour digital clock .....	9.95	
MFJ 108B 24/12-hour dual disp digital clock	19.95	
MFJ 112 Deluxe world map clock .....	24.95	
MFJ 114B Giant LED desk/wall 24-hour clock	59.95	
MFJ 115 DX'er 24-hr analog world wall clock	24.95	
MFJ 116 24/12-hr LED clock/10 min timer ...	14.95	
MFJ 116DC 12/24-hour 12vdc LED clock .....	19.95	
MFJ 118 Giant 24/12 hour LCD clock .....	24.95	
MFJ 119 Giant 24/12 hour LCD/in temp clock	49.95	
MFJ 120 Monster atomic (WWW) clock/temp/humd	69.95	
MFJ 125 Calendar 24-hour analog wall clock	29.95	
MFJ 152 Thermo clock; in/out temp/24-hr ....	24.95	

## COAX SEAL (UNV)

104 1/2" x 60" coax seal .....	\$ 2.95
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## COBRA (COB)

	Reg	Sale
10 SOS Kit AM Mobile CB w/mag mt ant ....D	\$ 79.95	39 <sup>95</sup>
18 Ultra AM Mobile CB .....	D 99.95	49 <sup>95</sup>
19DX AM Mobile CB .....	D 69.95	39 <sup>95</sup>
21LTD WX AM Mobile CB w/WX .....	D 119.95	59 <sup>95</sup>
25LTD WX AM Mobile CB w/WX .....	D 169.95	89 <sup>95</sup>
29LTD (29 Classic) AM Mobile CB .....	D 159.95	99 <sup>95</sup>
HH-35 AM portable CB .....	D 89.95	49 <sup>95</sup>
HH-70 AM remote CB .....	D 149.95	79 <sup>95</sup>
10 Ultra AT AM Mobile CB w/magnet mt ant	79.95	59 <sup>95</sup>
18WX ST Sound Tracker AM Mobile CB w/WX	109.95	79 <sup>95</sup>
19DX II AM Mobile CB .....	69.95	49 <sup>95</sup>
19 Ultra II AM Mobile CB .....	69.95	49 <sup>95</sup>
21LTD ST Sound Tracker AM Mobile CB .....	119.95	99 <sup>95</sup>
25LTD ST Sound Tracker AM Mobile CB .....	149.95	119 <sup>95</sup>
25NW ST Night Watch Sound Tracker AM Mobile CB	149.95	119 <sup>95</sup>
25WX ST Sound Tracker AM Mobile CB w/WX	179.95	129 <sup>95</sup>
25WXNW ST Night Watch Sound Tracker AM Mob CB/WX	179.95	129 <sup>95</sup>
29LTD ST Sound Tracker AM Mobile CB .....	199.95	149 <sup>95</sup>
29NW ST Night Watch Sound Tracker AM Mobile CB	199.95	149 <sup>95</sup>
29WX ST Sound Tracker AM Mobile CB w/WX	209.95	159 <sup>95</sup>
29WXNW ST Night Watch Sound Tracker AM Mob CB/WX	209.95	159 <sup>95</sup>
HH-36 ST Sound Tracker handheld CB .....	89.95	69 <sup>95</sup>
HH-45WX ST Sound Tracker handheld CB w/WX	149.95	119 <sup>95</sup>
93LTD WX AM Base CB/WX/tone alert .....	D 189.95	99 <sup>95</sup>
146GTL SSB/AM Mobile CB .....	D 329.95	139 <sup>95</sup>
148GTL ST Sound Tracker SSB/AM Mobile CB	259.95	169 <sup>95</sup>
AT-60 Trunk lip/roof mt CB antenna .....	D 19.95	14 <sup>95</sup>
AT-70 Magnet mt CB antenna .....	24.95	
CA-72 Amplified CB desk microphone .....	64.95	
CA-77 Noise canx/amplified mobile mic .....	24.95	
CP-912 900MHz dig sp spec cordless ph ....Δ	369.95	129 <sup>95</sup>
FRS-200 Family radio service handheld .....	D 159.95	79 <sup>95</sup>

## Reg Sale

## COMET (CMT)

### MOBILE ANTENNAS

	Reg	Sale
B-10 2m/440 2.15db 12" cell look-alike ant	\$ 39.95	
B-10NMO 2m/440 2.15db 12" cell look-alike NMO	39.95	
B-20 2m/440 2.15/5db 30" cell look-alike ant	49.95	
B-20NMO 2m/440 2.15db/5db 30" cell look NMO	49.95	
CA-2X4SR 2m/440 3.8/6.2db 40" mob ant ...	64.95	
CA-220MR 220 4.2db 3' 3" fold-over ant ....D	49.95	29 <sup>95</sup>
CA-UHV 40/15/10/6/2m 5' 10" mobile ant ....D	139.95	129 <sup>95</sup>
CA-HV 40/15/10/6/2m/440 mobile ant .....	149.95	139 <sup>95</sup>
L-14 20m loading coil for CA-HV/UHV .....	36.95	
L-18 17m loading coil for CA-HV/UHV .....	29.95	
CHL-28J 2m/440 3/5.5db 36" mobile ant ....D	29.95	
CHL-350 10/6m 0/2.15db fold-over 7" ant .D	79.95	69 <sup>95</sup>
FL-7HA 40m 40" mobile antenna .....	D 82.95	39 <sup>95</sup>
HA-4S 40/15/12/10m 4' 5" mobile ant .....	199.95	179 <sup>95</sup>
L-14HS 20m loading coil for HA-4S .....	39.95	
L-18HS 17m loading coil for HA-4S .....	39.95	
HA-035 80m 45" mobile antenna .....	82.95	
HA-050 6m 33" 1/4 wave mobile antenna .....	72.95	
HP-32 2m/440 3/5.5db 34" 350/250w ant ....	89.95	
M-24M 2m/440 1.7/4.1db mag mt ant w/BNC	39.95	
M-24B 2m/440 1.7/4.1db mag ant w/PL259	39.95	
MSG-1000C 2m/440 2.15/5.5db 39" mobile	62.95	
MSG-1100C 2m/440 3.5/6db 43" mobile ant	72.95	
QE-07 40m 50" mobile antenna .....	82.95	
QE-14 20m 49" mobile antenna .....	82.95	
QE-21 15m 49" mobile antenna .....	82.95	
QE-28 10m 46" mobile antenna .....	82.95	
OP-07 40m optional element for QE ant ....	42.95	
OP-14 20m optional element for QE ant ....	42.95	
OP-21 15m optional element for QE ant ....	42.95	
OP-28 10m optional element for QE ant ....	42.95	
QE-5 2m/440 2.15/5.5db 38" quick release D	54.95	
R-2000 900MHz 5.1db 19" type N mob ant ..	42.95	
SBB-1 2m/440 1.5/2.15db 16" flex mobile ..	39.95	
SBB-1NMO 2m/440 1.5/2.15db 16" flex NMO	39.95	
SBB-2 2m/440 2.15/3.8db 18" black mobile	39.95	
SBB-2NMO 2m/440 2.15/3.8db 18" blk NMO	39.95	
SBB-5 2m/440 3/5.5db 38" black mobile ant	54.95	
SBB-5NMO 2m/440 3/5.5db 38" black NMO ..	54.95	
SBB-7 2m/440 4.5/7.2db 4' 7" black mob ant	74.95	
SBB-7NMO 2m/440 4.5/7.2db 4' 7" blk NMO ..	74.95	
SB-14 6m/2m/440 43" chrome mobile ant ....	64.95	
SB-15 6m/2m/440 2.15/4.5/7.2db 5' chr mob	79.95	
SBB-25 2m 4.1db black mobile antenna .....	44.95	
SBB-25NMO 2m 4.1db black NMO mob ant ...	44.95	
SB-44 440 5db 29" mobile antenna .....	54.95	
SB-83 2m/440/cell 3/6/8.4db 35" N ant ....D	68.95	
SBB-94 2m/440/1.2 black 24" N antenna ....	69.95	
SB-97 2m/440/1.2 3/6/8.9db 39" type N ...	79.95	
SB-123 1.2GHz 7.2db 24" type N mobile ant	54.95	
SB-214W 2m/220 3' 1.7/3.4db mobile ant .D	49.95	
SBB-224 2m/220/440 2.15/3.2/5.5 blk mob ..	74.95	
SBB-224NMO 2m/220/440 2.15/3.2/5.5 blk NMO	74.95	
SBB-220MR 220 4.2db 3' 3" mobile ant ....D	49.95	
SF-245 2.4 GHz 7db 18" fg type N ant .....	61.95	
Z-750 2m/440 2.1/5.5db 39" theft resistant	62.95	
Z-780 2m/440 4.5/7.2db 5' theft resistant ...	82.95	

### MOBILE MOUNTS, ETC

	Reg	Sale
3D4M Mobile mt, 13' coax w/UHF connectors	\$ 24.95	
3D4N Mobile mt, 13' coax w/type N .....	28.95	
3D5M Mobile mt, 16.5' coax w/UHF connectors	27.95	
5D4N Roof mount, 13' coax w/type N .....	31.95	
AD-10N NMO mount to female N adapter .....	17.95	
AD-15M NMO mount to SO-239 adapter .....	17.95	
AD-25M SO-239 to NMO mount adapter .....	14.95	
CG-4M RS-2 gutter mount w/13.5' coax .....	29.95	
CK-3M Dlx 2-step 10' cable w/UHF connectors	33.95	
CK-3M5 Dlx 2-step 16.5' cable w/UHF connects	39.95	
CK-5N Dlx cable assembly w/type N .....	47.95	
CM-5M Hvy duty mag mt, coax, max 4' ant ..	24.95	
CQ-5M Dlx black QD trunk lip mt w/17' coax	66.95	



## COMET - continued

CR-5N	Dlx black QD tnl lip mt/17' coax/N	69.95	
CR-5M	Std coax assy, 16.5' coax, UHF conn	19.95	
CT-5M	Trunk lip mount w/16.5' coax	39.95	
GR-5M	Dlx tnl lip mt w/ coax; matches SB	67.95	
GR-5N	Dlx N tnl lip mt w/ coax; matches SB	69.95	
RS-2	Small gutter mount	22.95	
RS-6	Pipe clamp mount	29.95	
RS-9	Trunk lip mount, no coax	11.95	
RS-20	Gtr mt; small/med ants; no coax	29.95	14 <sup>95</sup>
RS-500	Mini heavy duty gutter mount	29.95	24 <sup>95</sup>
RS-520	Mini heavy duty trunk/hatch mount	28.95	
RS-560C	Luggage rack mount, no coax	35.95	
RS-720	Hatch/rear door/tnk multi-adj mt	27.95	
RS-730	HD rear van/SUV door/tnk lip mt, no coax	29.95	
RS-720NMO	Hch/rear door/tnk multi-adj NMO mt	27.95	
TS-103	Trunk lip mt w/coax	39.95	29 <sup>95</sup>
WS-1M	Window clip mt w/UHF connectors	64.95	

## BASE STATION ANTENNAS

CA-350DB	10/6m 2.15/6.5db 22' 7" ant	\$349.95	269 <sup>95</sup>
CA-712EF	440 9db 10' 5" base antenna	119.95	109 <sup>95</sup>
CA-ABC21	2m 3.4db 4' 7" base antenna	49.95	
CA-ABC22A	2m 6.5db 9' 5" base/rptr ant	69.95	
CA-ABC23	2m 7.8 db 13' 4" base/rptr ant	109.95	99 <sup>95</sup>
CA-F726F	440-470 6db 3' 6" tuneable ant	119.95	109 <sup>95</sup>
CA-Super22	220 6.6db 5' 11" base ant	159.95	149 <sup>95</sup>
CA-52HB4	6m 4 el 10.4db beam	129.95	119 <sup>95</sup>
CMR-241	2m/440 4.5/7.2db 6.5' rptr ant	174.95	109 <sup>95</sup>
CX-333	2m/440 8.5/11.9db 17' 8" N base/rptr	189.95	179 <sup>95</sup>
CYA-240	2m/440 9.5/11.6 3/5el 5.25' bm yagi	109.00	99 <sup>95</sup>
240-KT	Stacking harness kit for CYA-240	69.95	
CYA-1216E	1.2GHz 16el 16.6db 4' 5" N beam	149.95	139 <sup>95</sup>
DS-15	6m/2m/440/900/1.2 discorne antenna	99.95	109 <sup>95</sup>
GH-50	6m 2.15db 7' 10" fg base antenna	119.95	
GP-3	2m/440 4.5/7.2db 5' 11" base/rptr ant	99.95	
GP-6	2m/440 6.5/9db 10' 2" base/rptr ant	159.95	149 <sup>95</sup>
GP-9	2m/440 8.5/11.9db 17' 8" base/rptr	199.95	179 <sup>95</sup>
GP-9N	2m/440 8.5/11.9db 17' 8" N base/rptr	199.95	179 <sup>95</sup>
GP-15	6/2m/440 3/6.2/8.6db 7' 11" base	164.95	154 <sup>95</sup>
GP-21/CA-1221S	1.2 14.8db 8' N base/rptr	159.95	149 <sup>95</sup>
GP-24	2.4GHz 12.4db 5' 11" N base/rptr	229.95	199 <sup>95</sup>
GP-93	2m/440/1.2 4.5/7.2/10db 5' 7" type N	139.95	129 <sup>95</sup>
GP-98	2m/440/1.2 6.5/9/13.5db 9' 8" N ant	209.95	189 <sup>95</sup>
KP-20	900 MHz 9.2db 7' 4" type N base/rptr	121.95	112 <sup>95</sup>
PYA-913	900MHz 13el 15.8db 4' 8" type N beam	169.95	159 <sup>95</sup>
X-2427	2.4GHz 27el 21db 4' 7" bm N beam	259.95	239 <sup>95</sup>

## DUPLEXERS AND TRIPLEXERS

CF-142	1.3-150/200-480 600/400w UHF/leads	\$ 69.95	
CF-360A	1.3-30/50-470 600w UHF w/leads	69.95	
CF-360B	1.3-30/50-470 600w UHF/common lead	69.95	
CF-413A	440/1.2 500/200w N w/leads	74.95	
CF-413B	440/1.2 500/200w N/UHF/N leads D	74.95	59 <sup>95</sup>
CF-416A	2m/440 800/500w UHF w/leads	46.95	
CF-416C	2m/440 800/500w N/UHF/N leads	49.95	
CF-416W	1.3-250/400-1400 400/200w N/leads D	69.95	59 <sup>95</sup>
CF-530	1.3-90/125-470 600w UHF w/leads	69.95	
CF-706	1.3-56/75-320 350w UHF w/leads	69.95	
CF-706A	1.3-56/75-470 350w UHF w/leads	69.95	
CF-4130A	440/1.2 500/200w N, no leads	74.95	59 <sup>95</sup>
CF-4160I	2m/440 800/500w UHF/UHF/N, no leads	45.95	
CF-4160J	2m/440 800/500w SO239, no leads	53.95	
CF-4160K	2m/440 800/500w all UHF, no leads	45.95	
CFX-324A	2m/220/440 600w UHF w/leads	88.95	
CFX-324B	2m/220/440 600w UHF, no leads	85.95	
CFX-431A	2m/440/900-1.2 N/UHF/N/N, leads D	85.95	69 <sup>95</sup>
CFX-431B	2m/440/900-1.2 N/UHF/UHF/N, leads D	85.95	69 <sup>95</sup>
CFX-514	HF/2m/440 800/800/500w UHF w/leads	79.95	
CFX-514J	HF/2m/440 800/800/500w UHF, no leads	74.95	
CFX-514N	HF/2m/440 800/800/500w UHF/N w/leads	79.95	
CFX-4310B	2m/440/900-1.2 N/UHF/N/N, no leads D	79.95	64 <sup>95</sup>
CFX-4310C	2m/440/1.2; Kenwood TM-741A/941A	79.95	
CFX-5140	HF/6m/2m/440 800/800/500w UHF, no leads	74.95	

## HT AND HAND-HELD SCANNER ANTENNAS

BN-24	2m/440 17' 2.15/5.3db BNC whip	\$ 22.95	
CH-32	2m/440 1.75" BNC antenna	29.95	

## Reg Sale

## COMET - continued

CH-75	2m/440 0/3.2db 14.75" BNC ant	25.95	
CH-701X	2m/440/900 2/3.4/5.5db 19" BNC D	54.95	
CH-722SA	2m/440 3/5.5db BNC whip ant	45.95	
CY-1205BNC	1.2GHz 11db 7" BNC beam	49.95	
MH-209SMA	2m/440 3" SMA duck	23.95	
MH-510	6m/2m/440 20.75" SMA duck	37.95	
SH-55	2m/440 1.5/3.2db 15" BNC ant	33.95	
SH-95	2m/440/1.2 1.5/2.15/5.5db BNC ant	34.95	
SMA-3	2m/440 1.2/1.7db 9.75" SMA ant	39.95	
SMA-24	2m/440 17' 2.15/5.3db SMA whip	22.95	
SMA-501	2m/440/900 1.5" SMA ant	29.95	
SMA-503	2m/440 8.75" SMA antenna	29.95	

## SWR/POWER METERS & MINIMETERS

CM-120	1240-1300 MHz type N minimeter	\$ 99.95	
CM-690	1.9-60 MHz 20/150w minimeter	79.95	
CM-720	140-150/430-450 MHz minimeter	79.95	
CM-720N	140-150/430-450 type N minimeter	84.95	
CM-903	900-920 MHz type N minimeter	99.95	

CMX-2	1.8-200MHz 200w SWR/pwr/rem head D	179.95	149 <sup>95</sup>
CMX-3	140-525MHz 200w SWR/pwr/rem head D	169.95	139 <sup>95</sup>

EKS-3	10' remote head extension cable	23.95	
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## ACCESSORIES

CS-290P	1500MHz 150w N lightning protect D	\$ 39.95	29 <sup>95</sup>
CS-400P	500MHz 250w lightning protect	34.95	24 <sup>95</sup>
CSP-30	Mini speaker w/magnet mt	34.95	19 <sup>95</sup>
CSP-80	Mini sprkr/mag mt/noise filt/mute	39.95	24 <sup>95</sup>
CSW-20N	0-1300MHz N coax switch	99.95	59 <sup>95</sup>
HM-P2F	Mini sprkr/mic; Ali/Ico/Sta/Yae	32.95	24 <sup>95</sup>
HM-P2K	Mini sprkr/mic for Kenwood	32.95	24 <sup>95</sup>
HM-P4F	Mini "HT" sprkr/mic; Ali/Ico/Sta/etc D	32.95	24 <sup>95</sup>
HM-P4K	Mini "HT" sprkr/mic for Kenwood	32.95	24 <sup>95</sup>
HM-P4Y	Mini "HT" sprkr/mic for Yaesu	32.95	24 <sup>95</sup>

## Communications Specialists (COM)

SS-64	64-tone mini prog CTCSS encoder	\$ 28.95	
TE-32	32-tone CTCSS prog encoder box	49.95	
TE-64	64-tone CTCSS/burst switch enc box	79.95	
TS-64DS	64-tone CTCSS prog encoder/decoder	57.95	
DTD-1	DTMF decoder	49.95	
ID-8	Automatic morse station identifier	69.95	

## CONNECTORS

### AMPHENOL COAX CONNECTORS (AMP)

83-1SP-1050	Male coax plug (PL-259)	\$ 1.95	
83-1SP	Silver plated coax plug (PL-259)	2.95	
Van Gorden (VAN)	silver plated teflon PL-259	2.99	
83-185	Reducer for RG-58 (UG-175)	.95	
83-168	Reducer; RG-59/RG-8X (UG-176)	.95	
83-1AP	Right angle adaptor (UG-646)	5.95	
83-1J	Double female adaptor (PL-258)	3.95	
83-1R	Female chassis mt socket (SO-239)	2.95	
83-1H	Hood; in-line use w/83-1R (UG-106)	4.95	
83-1T	T-connector adaptor (M-358)	8.95	
83-877	Double male adaptor	10.95	
83-878	Single hole 1/8" chassis socket	2.95	
31-002	BNC male connector for RG-58	3.95	
31-012	BNC male connector; RG-59/RG-8X	4.95	
31-221	BNC female chassis socket	2.95	
82-24	Type N female chassis mt socket	4.95	
82-61	Type N male connector for RG-8	7.95	
82-64	Type N right angle adaptor	20.95	
82-202-1006	Type N male; 8214/9913/9913F	6.95	
82-209	Type N female in-line for RG-8	6.95	
34025	Type N male connector for RG-58	6.95	

### AMPHENOL COAX ADAPTORS (AMP)

2900	SO-239 to BNC male adaptor	\$ 9.95	
4400	SO-239 to type N male adaptor	13.95	
34125	Type N female - PL-259 adapt	21.95	
31-28	BNC female to PL-259 adaptor	10.95	
83-10	SO-239 to Motorola/phono plug	10.84	5 <sup>95</sup>

### AIM CONNECTORS, PLUGS & ADAPTORS (AIM)

19-1289	8-pin female mic plug	\$ 4.95	
25-7351	Chassis mt SO-239 double female	3.95	
25-7365	BNC female to SO-239	3.95	

## Reg Sale

## CONNECTORS - continued

25-7420	BNC male to SO-239	2.95	
26-8010	Type N double female	3.95	
26-8011	Type N chassis mount	2.95	
26-8015	N male to SO-239	4.95	
26-8016	BNC female to N male	4.95	
26-8017	BNC male to N female	4.95	
27-8110	BNC female to RCA male	1.95	75 <sup>95</sup>
27-8120	BNC female to PL-259	2.95	
27-8130	BNC double male	3.95	
27-8140	BNC T; 2 female, 1 male	2.95	
27-8142	BNC T, 3 male	6.40	99 <sup>95</sup>
27-8450	BNC chassis mt, 4 screw holes	2.95	
27-8460	1/8" hole BNC chassis mt	1.95	
27-8470	Dual BNC chassis mount	3.95	
29-3855	BNC female to SMA male	3.95	
29-4120	"T" 1 male, 2 female	4.95	1 <sup>95</sup>
29-4140	SO-239 to mini PL-259	2.95	

## CONNECTORS UNLIMITED (CON)

306	SO-239 to BNC male adaptor	\$ 2.76	99 <sup>95</sup>
1721	7-pin DIN plug	1.38	49 <sup>95</sup>

## Switchcraft 1/4" Plugs w/Solder Terminals (SWI)

220	2-cond, plastic, screw terms, rt ang plug D	\$ 5.95	3 <sup>95</sup>
237	3-cond, plastic handle, rt angle plug	5.15	69 <sup>95</sup>
250	2-conductor, plastic handle	3.90	2 <sup>95</sup>
260	3-conductor w/screw terminals	6.95	3 <sup>95</sup>
267	3-conductor, plastic handle	5.50	2 <sup>95</sup>
280	2-conductor, metal handle	4.95	
297	3-conductor, metal handle	6.95	

## SWITCHCRAFT PHONO-TYPE CONNECTORS (SWI)

3501MC	Phono plug with cable clamps	\$ .95	69 <sup>95</sup>
3502	Shielded phono plug	2.95	
3507	RF-type phono plug	3.95	

## VANCO MICROPHONE CONNECTORS (VCO)

CBC-2	2-pin female mic plug	\$ 3.95	
CBC-3	3-pin female mic plug	2.95	
CBC-4	4-pin female mic plug	4.95	
CBC-4P	Panel mt 4-pin male	2.95	
CBC-5	5-pin female mic plug	3.95	
CBC-5P	Panel mt 5-pin male	2.95	
CBC-6	6-pin female mic plug	4.95	
CBC-6P	Panel mt 6-pin male	3.95	
CBC-8P	Panel mt 8-pin male	5.95	

## KENWOOD DIN PLUGS (KEN)

7-pin DIN plug	\$ 4.95	
8-pin DIN plug	6.95	
13-pin DIN plug	9.95	

## VANCO MINI PHONE & CIG PLUGS (VCO)

P-25	2.5mm sub-miniature phone plug	\$ .99	
P-35	3.5mm miniature phone plug	.99	
P-12R	2-contact cigarette plug	1.95	
P-12V	Cig lighter plug w/leads	2.95	
P-212	2-outlet cigarette plug adapter	6.95	
P-212B	Dual cigarette lighter socket adapter	9.95	

## Connect Systems (CSY)

CS-700	Simplex interconnect	\$485.00	219 <sup>95</sup>
CS-800	Full duplex patch & repeater controller	485.00	359 <sup>95</sup>
CS-900	Simplex interconnect	485.00	359 <sup>95</sup>
Private Patch V	Multi-mode interconnect	615.00	349 <sup>95</sup>
9801	Elec voice delay Private Patch V	141.50	89 <sup>95</sup>
CD-2	DTMF/CTCSS/DCS decoder unit/RS-232	284.00	249 <sup>95</sup>
CD-2P	PC application program for CD-2	113.00	99 <sup>95</sup>
LT-2P	PC application program for LT-2	113.00	39 <sup>95</sup>

## COUGAR (CUG)

H-83	AM/FM/SW mini receiver	24 <sup>95</sup>	
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## COURIER (COU)

Procom	2w VHF FM hand-held/batt/cgr	\$199.95	99 <sup>95</sup>
M-54	5w 4ch VHF hand-held/batt/cgr/151.625	299.95	199 <sup>95</sup>
AUC-12	Cig lighter charger adapter	14.95	4 <sup>95</sup>
DIC-V	3-hour quick charger for M-54	69.95	29 <sup>95</sup>
M-510	5w 10ch synth VHF FM hand-held	399.95	269 <sup>95</sup>
MU-510	5w 10ch synth UHF FM hand-held	439.95	299 <sup>95</sup>



# PRICE GUIDE

## COURIER - continued

Reg Sale

CCK-510 Cloning cable for M-510/MU-510	18.95	
CPK-510 Prog kit for M-510/MU-510	224.95	199 <sup>95</sup>

## COYNE (COY)

MacHam General	Δ \$ 34.95	14 <sup>95</sup>
MacHam Advanced	Δ 34.95	14 <sup>95</sup>
MacHam Extra	Δ 34.95	14 <sup>95</sup>
MacHam Radio Morse Code training soft	Δ 39.95	14 <sup>95</sup>

## CROSS DEVICE (CRS)

STUF Coax connector waterproofing filler	\$ 4.95	
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## CUSHCRAFT (CUS)

### VHF/UHF FM BEAMS\* (Vertical polarization)

A148-3S 2m, 3 el wideband beam	\$ 52.95	
A148-10S 2m, 10 el wideband beam	94.44	89 <sup>95</sup>
A148-20S 2 A148-10S vert stacked	258.89	199 <sup>95</sup>
A449-6S 440 MHz, 6 el, 3' boom, 10 db	50.95	
A449-11S 440 MHz, 11 el, 4.5' boom, 13 db	76.67	69 <sup>95</sup>

\*These antennas can be mounted vertically or horizontally!

### DUALBAND 2M/440 FM BEAMS\* (Vert polarization)

A270-6S 2m/440, 3/3 el, 2.8' boom, 7.8 db	\$ 78.95	69 <sup>95</sup>
A270-10S 2m/440, 5/5 el, 6.17' boom, 10 db	104.21	94 <sup>95</sup>

\*These antennas can be mounted vertically or horizontally!

### FM VERTICAL STACKING KITS\* (Adds 3 db)

A14-SK Harness only for 2 A148-3S	D \$ 48.00	9 <sup>95</sup>
A147-VPKS Stacking kit for 2 A147-11	D 101.00	49 <sup>95</sup>
A220-VPK Stacking kit for 2 A220-11	D 55.00	14 <sup>95</sup>

\*Prices are for stacking kits only

### FM RINGOS - 1/2 Wave Verticals - 3.75 db

AR-10 10m FM Ringo, 1000w	\$ 89.47	79 <sup>95</sup>
AR-6 6m FM, 1000w	74.74	69 <sup>95</sup>
AR-2 2m FM, 1000w	52.63	49 <sup>95</sup>
AR-450 440 MHz FM, 500w	36.95	
AFM-4DA 2m FM 23' 4-pole antenna	D 148.00	89 <sup>95</sup>

### RINGO RANGERS - FM Verticals - 6 db

ARX-6 6m FM Ringo Ranger	D \$259.00	179 <sup>95</sup>
ARX-2 2m FM Ringo Ranger	63.16	59 <sup>95</sup>
ARX-2B 2m FM Ringo Ranger II, 1000w	76.84	69 <sup>95</sup>
ARX-220B 220 FM Ringo Ranger II, 500w	76.84	69 <sup>95</sup>
ARX-450B 440 FM Ringo Ranger II, 500w	76.84	69 <sup>95</sup>

### DUALBAND 2M/440 FM VERTICALS

AR-270 2m/440 MHz FM, 250w, 3.7/5.5db	\$ 92.63	84 <sup>95</sup>
AR-270B 2m/440 MHz FM base ant	134.74	109 <sup>95</sup>
ARX-270N 2m/440 9/12 db fg type N ant	D 310.00	199 <sup>95</sup>
ARX-270U 2m/440 9/12 db fg SO-239 ant	D 310.00	199 <sup>95</sup>

### TWIST, OSCAR BEAMS (Horiz/Vert Polarization)

A148-20T 2m 20el 10.8'bm 11.1db twist	\$147.78	119 <sup>95</sup>
22XB 2m 22el 19.3'bm 14db circ beam/relay	D 298.00	199 <sup>95</sup>
719B 432 19 el beam	157.78	129 <sup>95</sup>
729B 432 29 el beam	250.00	199 <sup>95</sup>
738XB 432 38el 14.3'bm 15.5db circ/relay	D 276.00	199 <sup>95</sup>
PS-4A Remote polarity switch	D 150.00	69 <sup>95</sup>

### BOOMER ANTENNAS

617-6B 6m Boomer, 6 el, 34' boom, 14 db	\$483.33	369 <sup>95</sup>
124WB 2m Boomer, 4 el, 4' boom, 10.2 db	81.11	74 <sup>95</sup>
13B2 2m Boomer, 13 el, 15' boom, 15.8 db	157.78	129 <sup>95</sup>
17B2 2m Boomer, 17 el, 31' boom, 18 db	273.33	219 <sup>95</sup>
26B2 2 13B2s vertically stacked	451.11	339 <sup>95</sup>
224WB 220 Boomer, 4 el, 3' boom, 10.2db	65.56	59 <sup>95</sup>
225WB 220 wideband Boomer, 15el, 10'bm, 15.5db	170.00	139 <sup>95</sup>

### BOOMER STACKING KITS\*

617-SK Harness, pwr divider; 2 6176Bs	D \$160.00	49 <sup>95</sup>
22-SK Harness, power divider; 2 13B2s	111.11	99 <sup>95</sup>
22N-SK Harness, pwr divider; 2 17B2s	183.33	149 <sup>95</sup>
26B2-VPK Vertical polar kit; 2 13B2s	194.44	159 <sup>95</sup>
PD-2 Power divider for 2 13B2s	55.95	
PD-2N Power divider for 2 17B2s	D 91.00	59 <sup>95</sup>
PD-4 Power divider for 4 13B2s	70.00	64 <sup>95</sup>
PD-4N Power divider for 4 17B2s	D 113.00	79 <sup>95</sup>
PD-224 Power divider; 4 220 Boomers	D 61.00	19 <sup>95</sup>

\*Prices are for stacking kits only

## CUSHCRAFT - continued

Reg Sale

<b>VHF/UHF BEAMS* (Horizontal polarization)</b>		
A50-3S 6m, 3 el, 6' boom, 8 db, stainless hdwre	\$110.00	99 <sup>95</sup>
A50-5S 6m, 5 el, 12' boom, 10 db, stainless hdwre	182.00	149 <sup>95</sup>
A50-6S 6m, 6 el, 20' boom, 11db, stainless hdwre	304.00	249 <sup>95</sup>
A148-10S 2m, 10 el wideband beam	94.44	89 <sup>95</sup>
A430-11S 430 MHz, 11 el, 4' boom, 13 db	76.67	69 <sup>95</sup>

\*These antennas can be mounted vertically or horizontally!

### HORIZONTAL STACKING KIT\* (Adds 3 db)

A17-SK For 2 A144-7S, 79" spacing	D \$ 48.00	9 <sup>95</sup>
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\*Price is for stacking kit only

### MOBILE ANTENNAS

CG-144A 2m 3/4" mt Gold series coil/whip only	D \$114.00	79 <sup>95</sup>
CS-28M 10m magnet mt antenna	69.47	64 <sup>95</sup>
CS-50M 6m magnet mt 3 db antenna	69.47	64 <sup>95</sup>
CS-147 2m 3/4" hole mt 3 db antenna	D 55.00	29 <sup>95</sup>
CS-147M 2m magnet mt 3 db antenna	69.47	64 <sup>95</sup>
CS-147A 2m coil & whip only	46.95	
CS-220 220 3/4" hole mt 3 db antenna	D 55.00	29 <sup>95</sup>
CS-220M 220 magnet mt 3 db antenna	69.47	64 <sup>95</sup>
CS-220T 220 trunk lip mt 3 db ant	D 64.00	29 <sup>95</sup>
CS-450 440 3/4" hole mt 5 db antenna	D 55.00	29 <sup>95</sup>
CS-450M 440 magnet mt 5 db antenna	69.47	64 <sup>95</sup>
CS-450T 440 trunk lip mt 5 db ant	D 64.00	39 <sup>95</sup>
CS-450A 440 coil & whip only	D 43.00	19 <sup>95</sup>

### DUALBAND 2M/440 MOBILE ANTENNAS

CS-270M 2m/440 3.7/6 db magnet mt ant	\$ 91.58	84 <sup>95</sup>
CS-270A 2m/440 coil & whip only	63.16	59 <sup>95</sup>

### MOUNTS ONLY FOR MOBILE ANTENNAS

CG-MG Gold series magnetic mount	D \$ 35.95	
CG-MGN Gold series mag mt/N connector	D 35.95	29 <sup>95</sup>
CS-MG Magnetic mount	30.95	
CS-MGN Magnetic mount w/N connector	35.95	
CS-TL Trunk lip mount	30.95	

### SKYWALKER HF BEAM

20-3CD 20m, 3 el, 20' boom, 8 db	D \$485.00	329 <sup>95</sup>
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### MULTIBAND VERTICAL ANTENNAS

R-6000 20/17/15/12/10/6m vertical	\$365.00	269 <sup>95</sup>
R-7000 40/30/20/17/15/12/10m vertical	510.00	379 <sup>95</sup>
R-80 80m kit for R-7000	172.22	139 <sup>95</sup>

### ROTATABLE DIPOLES

D-3 20/15/10m World Ranger dipole	\$263.16	199 <sup>95</sup>
D-3W 30/17/12m rotatable dipole	263.16	199 <sup>95</sup>
D-4 40/20/15/10m World Ranger dipole	357.89	289 <sup>95</sup>
D-40 40m World Ranger dipole	321.05	249 <sup>95</sup>

### BIG THUNDER TRI-BAND BEAMS

X-9 20/15/10m, 9 el, 28' boom, 13/14db	1163.75	869 <sup>95</sup>
X-940 40m 1 element add-on kit for X-9	321.64	269 <sup>95</sup>
X-7 20/15/10m, 7 el, 18' boom, 12.5/13db	789.47	599 <sup>95</sup>
X-740 40m add-on kit for X-7	321.64	269 <sup>95</sup>

### BIG THUNDER MONOBAND BEAMS

XM-240 40m, 2 el, 23' boom, 7 db	\$840.93	599 <sup>95</sup>
XM-520 20m, 5 el, 35' boom, 9.3db	922.81	649 <sup>95</sup>
XM-515 15m, 5 el, 24' boom, 9.3db	525.14	399 <sup>95</sup>
XM-510 10m, 5 el, 19' boom, 9.3db	384.80	299 <sup>95</sup>
TEN-3 10m, 3 el, 8' boom, 8 db	221.06	169 <sup>95</sup>

### MULTIBAND BEAM ANTENNAS

A-3S 20/15/10m, 3el, 14'bm, 8db, stainless hdwr	\$523.16	369 <sup>95</sup>
A-743 40m or 10 MHz add-on kit; A-3/A-3S	167.37	139 <sup>95</sup>
A-4S 20/15/10m, 4el, 18'bm, 9db, stainless hdwre	628.42	449 <sup>95</sup>
A-744 40m or 10 MHz add-on kit; A-4/A-4S	167.37	139 <sup>95</sup>
A-3WS 17 & 12m, 3 el, 14' boom, 8 db	410.53	299 <sup>95</sup>
A-103 30m add-on kit for A-3WS	167.37	139 <sup>95</sup>
ASL-2010 13.5-32MHz 8el 18'bm 6.4db LP	871.58	619 <sup>95</sup>
MA-5B 20/17/15/12/10m 7.3' boom mini beam	365.80	269 <sup>95</sup>

### LIGHTNING ARRESTORS

LAC-4 200w SO-239 gas tube arrestor	\$ 40.95	
LAC-4H 2kw SO-239 gas tube arrestor	45.95	
LAC-4N 200w type N gas tube arrestor	52.95	
LAC-4NH 2kw type N gas tube arrestor	56.95	
LC-2 Extra 200w cartridge for LAC-4/4N	17.95	
LC-2KW Extra 2kw cartridge for LAC-4H/4NH	20.95	

## CUSHCRAFT - continued

Reg Sale

5VB Vinyl connector boots	pack of 5	15.95
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## CUTTING EDGE (CUT)

HMP WorldPack backpack; mini HF Xcvr	\$ 57.95	
HPP-7A 7AH gel-cell w/overnight charger	63.95	
HP-7AF 7AH gel-cell w/2.5 hr fast charger	119.95	

## DCI (DCI)

145-2H 2m 144-146MHz 200w bandpass filter	\$ 89.95	
146-4H 2m 144-148MHz 200w bandpass filter	89.95	
223.5-3H 222-225MHz 200w bandpass filter	89.95	
2m/220 models w/N connectors add \$10	special order	
435-10C 430-440MHz 200w N bandpass filt	109.95	
445-10C 440-450MHz 200w N bandpass filt	109.95	

## DC SALES (DCS)

Tenna Hitch Antenna mount for trailer hitch	\$ 35.95	
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## DAIWA (DAI)

CS-201 2-position 600 MHz coax switch	\$ 29.95	
CS-401 4-position 800 MHz coax switch	129.95	
CN-101 1.8-150MHz SWR/power meter/light	94.95	
CN-103M 140-525MHz SWR/power meter	99.95	
CN-410M 3.5-150MHz 15/150w mob meter	119.95	
CN-460M 140-450MHz 15/150w mob meter	99.95	

## DAVIS (DAV)

7400 Perception II indoor WX unit	\$150.00	129 <sup>95</sup>
7415 Wizard II-S weather station	150.00	129 <sup>95</sup>
7425 Wizard III weather station	195.00	169 <sup>95</sup>
7440 Monitor II weather station	395.00	349 <sup>95</sup>
7852 Rain Collector II, 0.01"	75.00	69 <sup>95</sup>
7977 Electronic rain counter, 0.01"	30.95	
7859 External temp/humd Sensor II; 7440	125.00	109 <sup>95</sup>
7862 Weatherlink IBM interface/software	165.00	139 <sup>95</sup>
7866 Weatherlink Mac interface/software	165.00	139 <sup>95</sup>
7870 Modem adapter for 7862/7866	7.95	
7867 Weatherlink IBM conversion kit	50.95	
7868 Weatherlink Mac conversion kit	50.95	
7873 Cig lighter power cord	9.95	
7876-040 4-conductor 40' extension cable	18.95	
7878-040 6-conductor 40' extension cable	22.95	
7880 8-conductor 25' junction box cable	15.95	
7881 8-conductor 50' junction box cable	25.95	
7882 8-conductor 100' junction box cable	45.95	
7890 Mast mount for anemometer	16.95	
0131 Weather forecasting quick reference card	9.95	
0271 Turbo Meter handheld dig wind indicator	165.00	99 <sup>95</sup>
0281 Wind Wizard handheld wind indicator	46.95	
7520 Stand alone 0.01" rain gauge/elec ctr D	95.00	49 <sup>95</sup>

## DELORME (DEL)

Topo USA US topographical maps CD-ROM	\$ 99.95	
Earthmate Laptop PC GPS/Street Atlas soft	159.95	

## DIAMOND (DIA)

### SWR/POWER METERS

SX-20C HF/6m/2m 30/300w meter	\$ 89.95	
SX-40C 144-470 (220 w/correction) 15/150w	79.95	
SX-100 1.6-60 MHz 30/300/3kw PEP meter	144.95	134 <sup>95</sup>
SX-200 1.8-200 MHz 5/20/200w PEP meter	104.95	94 <sup>95</sup>
SX-400 140-525 MHz 5/20/200w PEP meter	124.95	114 <sup>95</sup>
SX-600 Dual band 1.8-160/140-525 200w PEP mtr	179.95	169 <sup>95</sup>
SX-1000 1.8-160/430-1300MHz 200w PEP meter	234.95	214 <sup>95</sup>

### HT & HANDHELD SCANNER ANTENNAS

RH-3 2m/440 1.75" BNC mini HT duck	\$ 24.95	
RH-77CA 2m/440 15" BNC rubber gain ant	24.95	
RH-205 2m 3/4 wave telescopic HT antenna	24.95	
RH-519 2m/440 8.3" flexible BNC whip	27.95	
RH-707 2m/440 8 3/4" tiltable BNC whip	33.95	
RH-951S 2m/440/1.2GHz 15" BNC slim duck	44.95	
SRH-519 2m/440 8.3" flexible SMA whip	32.95	
SRH-805 2m/440/1.2GHz 1.75" SMA ant	27.95	
SRH-815 2m/440/1.2GHz 6" flex SMA whip	36.95	



## DIAMOND - continued

Reg Sale

### MONO-BAND MOBILE ANTENNAS

NR-22C	2m 4.1db 55.5" mobile antenna	\$ 39.95
NR-124	1.2GHz 8.4db 25" type N mobile ant	59.95
NR-140A	220 4db 37" mobile antenna	53.95
SG-2000HD	2m 5.2db 62.6" 250w mob ant	89.95
SG-6000NMO	52-54 2.15db 39" NMO mob	64.95

### DUAL-BAND MOBILE ANTENNAS

CR-214S	2m/220 2.1/3.4db 37" mobile ant	\$ 58.95
CR-224A	2m/220 5/6db 69" mobile antenna	109.95
NR-72BNMO	Black 2m/440 2.15db 14" NMO	41.95
NR-73BNMO	Blk 2m/440 2.15/5.5db 34" NMO	57.95
NR-770HA	2m/440 3/5.5db 40" mobile ant	56.95
NR-770HB	Black 2m/440 3/5.5db 40" mobile	59.95
NR-770HNMO	2m/440 3/5.5db 40" NMO mobile	56.95
NR-770HBNMO	Blk 2m/440 3/5.5db 40" NMO	59.95
NR-770RA	2m/440 3/5.5db 39" mobile ant	51.95
NR-770SA	2m/440 2.15db 16.5" mobile ant	41.95
NR-790A	2m/440 4.5/7.2db 57" mobile ant	82.95
SG-7000A	2m/440 2.15/3.8db 19" mobile	69.95
SG-7200NMO	2m/440 3.2/5.7db 38" NMO ant	86.95
SG-7500A	2m/440 3.5/6db 41" mobile ant	79.95
SG-7500NMO	2m/440 3.5/6db 41" NMO ant	79.95
SG-7900A	2m/440 5/7.6db 62" mobile ant	124.95

### TRI-BAND MOBILE ANTENNAS

CR-320A	2m/220/440 2.15/3.8/5.5db 36"	\$ 89.95
CR-627B	6m/2m/440 2.15/4.5/7.2db 60" ant	109.95
CR-627BNMO	6m/2m/440 2.15/4.5/7.2db 60"	109.95
MV-3A	10/6/2m 57" UHF base mobile ant	84.95
HVC-7	40m loading coil for MV-3A	39.95
HVC-14	20m loading coil for MV-3A	37.95
HVC-18	17m loading coil for MV-3A	37.95
HVC-21	15m loading coil for MV-3A	27.95
NR-2000NA	2m/440/1.2 3/6/9.7db 39" N mob	89.95
SG-9600	6m/2m/440 2.1/2.15/5.2db 33" ant	92.95
D-505	Mobile 40-1500MHz 20db receive ant	119.95

### MAGNET MOUNTS

DPK-4NM-M	Hvy mag mt, Yaesu N, 45" max	\$ 45.95
DPK-4NM-N	Hvy dty mag mt, cbl, N, 45" max	45.95
K-702M	Hvy dty mag mt, 6 3/4" dia, 50" max	49.95
MCR-M	Mag mt HT base/coax/tilt BNC	44.95
SPM-35	Hvy dty mag mt, cable, 45" max	39.95
SPM-NMO	Hvy dty NMO mag mt, cbl, 45" max	44.95

### TRUNK LIP MOUNTING KITS

K-200	Folding hatch/trnk mt; NR/SG ants	\$ 34.95
K-200KM	Folding hatch/trnk mt/coax; NR/SG	62.95
K-400	Hatch/trunk mt; NR/SG antennas	39.95
K-400C	Hatch/trunk mt w/coax; UHF mount	69.95
K-400CNMO	Hatch/trunk mt w/coax; NMO mt	69.95
K-400-3/8C	Trunk mount w/6" cable; 3/8-24	69.95
C-110	10' extension cable for K-400-3/8C	14.95
K-400N	Hatch/trunk mt w/coax & type N	74.95
K-600M	Tilt angle trunk mt w/cable	57.95
K-600P	Tilt angle trunk mt w/cable, Yaesu N	64.95
K-601M	SO-239 hideaway trunk mt, 6' coax	69.95
K-601NMO	NMO hideaway trunk mt, 6' coax	69.95
C-110	10' extension cable for K-601 mts	14.95
K-9000LRM	Motorized luggage rack mount	109.95
K-9000TRM	Motorized trunk/hatchback mt	109.95

### GUTTER MOUNTS & KITS

K-300	Folding gutter mt; NR/SG antennas	\$ 39.95
K-300C	Gutter mt w/cable; UHF mount	69.95
K-300KM	Folding gutter mt w/coax; NR/SG	67.95

### MIRROR & LUGGAGE RACK MOUNTS & KITS

K-540	Mirror/luggage rack mount	\$ 35.95
K-540KM	Mirror/luggage rack mt w/coax	59.95
K-550	Luggage mt; new mini vans (use GLP)	44.95
K-550KM	Luggage mt w/SO-239 base/coax	69.95

### MOUNTING GROUP HARDWARE

C-101	SO-239 mt, 6.5' RG-316 low-loss coax	\$ 29.95
C-101NMO	NMO mt, 6.5' RG-316 low-loss coax	29.95
C-110	10' ext cable; C-101/K-601/K-400-3/8C	14.95
C-110BNC	10' extension cable to BNC male	22.95

## DIAMOND - continued

Reg Sale

C-211	SO-239 mt, 6.5' coax, 10' coax entnd	39.95
C-213	SO-239 mt, 13.5' RG-316 low-loss coax	37.95
C-213NMO	NMO mt, 13.5' RG-316 low-loss coax	37.95
GLP-5	UHF base mtg group hrdwr; mini coax	10.95
GLP-5N	UHF mtg grp hrdwr; mini coax, Yae N	13.95
GLP-5H	UHF base mounting group hardware	10.95
NMO-UHF	Adapter for NMO; not for SG, 45" max	17.95

### MULTIBAND HF BASE VERTICAL ANTENNAS

CP-5	80/40/20/15/10m 200w PEP 15' vert	\$309.95
CP-6	80/40/20/15/10/6m 200w PEP 15' vert	329.95

### MONO-BAND BASE STATION ANTENNAS

CP-22E	2m 6.5db 9' base antenna	\$ 59.95
DP-GH62	6m 6db 21' base antenna	157.95
F-22A	2m 6.7db 10.5' base antenna	99.95
F-22J	143.5-146.5MHz 6.7db 10.5' base ant	109.95
F-23A	2m 7.8db 15' base antenna	137.95
F-23C1	148-154MHz 7.8db 15' comm base	183.95
F-23J	143.5-146.5MHz 7.8db 15' base ant	172.95
F-142A	220 MHz 5.5db 6' base antenna	132.95
F-718A	440 11.5db 15' type N base antenna	229.95
F-718J	428-442MHz 11.5db 15' N base ant	239.95
F-718L	420-430MHz 11.5db ATV N base ant	239.95
F-1230A	1.2GHz 13.5db 10.5' type N base ant	169.95

### DUAL-BAND BASE STATION ANTENNAS

U-200	440/1.2GHz 8.3/11.7db 6' N base ant	\$139.95
X-50A	2m/440 4.5/7.2db 5.6' base antenna	109.95
X-50NA	2m/440 4.5/7.2db 5.6' base N ant	109.95
X-200A	2m/440 6/8db 8.3' base antenna	149.95
X-300A	2m/440 6.5/9db 10.2' base ant	174.95
X-500HNA	Hvy dty 2m/440 8.3/11.7db 17.8' N ant	259.95
X-510MA	2m/440 8.3/11.7db 17.2' base ant	209.95
X-510NA	2m/440 8.3/11.7db 17.2' type N ant	209.95
X-510NJ	143.5-146.5/428-442MHz 17.2' N	219.95
X-700HNA	2m/440 9.3/13db 24' type N ant	439.95
X-2200A	2m/220 6/7.8db 11.5' base ant	183.95

### TRI-BAND BASE STATION ANTENNAS

D-130J	25-1300 MHz 200w discone ant	\$ 89.95
U-5000A	2m/440/1.2GHz 4.5/8.3/11.7db 6' N	149.95
V-2000A	52-54MHz/2m/440 2.1/6.2/8.4db 8.3'	172.95
X-3200A	2m/220/440 6/7.8/8db 10' base	229.95
X-6000A	2m/440/1.2 6.5/9/10db 10.5' N	219.95
D-707E	Base 40-1500MHz 20db receive ant	179.95

### DUPLEXERS & TRIPLEXERS

MX-37	HF-440/1.2 100/50w N duplexer	\$ 64.95
MX-62M	HF-6m/2m, 12" cables duplexer	74.95
MX-72D	HF-6m/440 400/150/100w duplexer	43.95
MX-72DN	As MX-72D/type N on 440	52.95
MX-72H	As MX-72D, w/12" cables	46.95
MX-72N	As MX-72D, type N on 440, 12" cables	49.95
MX-214	2m/220 150/100w w/12" cables	69.95
MX-214D	As MX-214, no cables	69.95
MX-324	2m/220/440 triplexer	99.95
MX-324D	As MX-324, no cables	99.95
MX-2000	HF-6m/2m/440 400/400/250w triplexer	84.95
MX-2000D	As MX-2000, no cables	79.95
MX-3000	HF-2m/440/1.2 400/200/100w triplexer	79.95
MX-3000D	As MX-3000, no cables	79.95
MX-3000N	As MX-3000, type N, 12" cables	85.95

### ACCESSORIES

CA-35R	DC-500MHz 400w lightning protect	\$ 29.95
CX-210A	1.5kw DC-1000MHz coax switch	44.95
CX-210N	1.5kw DC-1500MHz N coax switch	74.95
CX-310A	HD 3-pos DC-800MHz coax switch	83.95
DL-30A	15/100w peak 0-500MHz dummy load	27.95
DL-30N	15/100w peak 0-500MHz N dummy load	39.95
GZV-4000	Variable 40A switching ps/meter/spkr	229.95
HB-300	Remote head mount for Xcvr	59.95
HB-400	HT air vent dash mount	19.95
HB-450	HT adjustable air vent dash mount	54.95
HB-500	Remote head air vent dash mount	22.95
HB-650	HT door mt; side wind/glv bx	69.95

## Diamond Systems (DSY)

### IBM LICENSE COURSE; THEORY/REGULATIONS/CODE

DSI-IBM-N	Novice Class License software	\$ 49.95
DSI-IBM-T	Technician Class License software	44.95
DSI-IBM-NC	No Code Tech Class License software	59.95
DSI-IBM-G	General Class License software	44.95
DSI-IBM-A	Advanced Class License software	59.95
DSI-IBM-E	Extra Class License software	59.95

## DIGIMAX (DIG)

B-12	Dry cell holder, switch; D-612	\$ 10.95
BAC-5	Nicad pack; r D-500/D-510A	29.95
BAC-12	Nicad pack; D-612/D-1200	34.95
T-1200	21" BNC telescopic antenna	8.95

## DRAKE (DRA)

TR-270	25w 2m FM Xcvr/ps/440 rcvr/TTP	\$599.95
DEM0D-270	Multimode demodulator kit	99.95
TNC-270	9600 bps terminal node controller	249.95
R-88	Shortwave receiver	1199.95
MS-8	1592 Speaker	49.95
1590	35-55, 108-174 MHz VHF converter	219.95
7852	R-8B technical manual	39.95
1591	Interface computer soft; original R-8	59.00
SW-8	Shortwave receiver	799.95
1595	Carrying case for SW-8	49.95
SW-1	Shortwave receiver	299.95
SW-2	Shortwave receiver	499.95
MS-8	1592 Speaker for SW-2	49.95
1334	Mobile mount kit for SW-1/SW-2	15.95
1594	Remote control for SW-2	49.95
2051	Tilt/carry handle for SW-1/SW-2	4.95

## EASY-UP (UPS OK) (EAS)

EZ 48-3ABX	3' boxed tripod w/pitch pad kit	\$ 24.95
EZ 48-5ABX	5' boxed tripod w/pitch pad kit	34.95

## EDCO (EDC)

TX-146	2m 50w 40db 3-stage helical filt	\$ 89.95
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## FORBES GROUP (FOR)

VT-14	2m Ventenna 3' 2.6 db base ant	\$ 49.95
VT-15	Scanner Ventenna 3' 2.6 db base	49.95
VT-22	220 Ventenna 25" 2.6 db base ant	49.95
VT-27	2m/440 Ventenna base antenna	74.95
VT-44	440 Ventenna 14" 2.6 db base ant	49.95

## FREEPLAY (BAY)

FPR-1B	AM/FM/5.8-18SW 30 min Freeplay radio	\$ 99.95
SWL Antenna/FPA-7	Indoor SW antenna	19.95
FPR-2	AM/FM 60 minute Freeplay radio	69.95
FPR-2SC	AM/FM/solar clear case Freeplay	79.95
FPR-2SM	AM/FM/solar gray case Freeplay	79.95
AC Adapter/FPA-3	For FPR-2 series radio	10.95
Headphones/FPA-1	For FPR-2 series radio	14.95
FP-SL	Self powered Freeplay lantern	69.95
Bulb/FPA-11	2-pack replacement bulbs	7.95
FPS-10/FPA-10	Patch cord for 3V output	6.95

## Gamber-Johnson (GAM)

SS-100	Super slide mount w/ant plug	\$ 99.00
SS-101	Extra base for SS-100	44.95

## GAP VERTICALS (GAP)

DX-VIII	Challenger 75*/40/20/15/12/10/6/2m 31.5'	\$279.95
*80m CW	w/capacitor exchange from GAP	
Challenger Counterpoise		25.95
(SYN) 100' 3/4" black double braided rope		6.95
DX-IV	Eagle 40/20/17/15/12/10m 21.5' rigid	289.95
DX-IV	Voyager 160/80/40/20m 45'; use 350' guy	399.95
Voyager Counterpoise		50.95
(SYN) 350' 3/4" black double braided rope		39.95
Titan DX	80*/40/30/20/17/15/12/10m, 25'	319.95
*80m CW	w/capacitor exchange from GAP	
100' Guy Kit with clamp		14.95



# PRICE GUIDE

## GAP - continued

200' Guy Kit with clamp .....	22.95	
Ground Mount Quick tilt mt for vertical ant .....	69.95	
Ladder Mount Quick tilt mt; campers/RVs ....	69.95	

## GARMIN (GAR)

GPS-12CX Color GPS receiver .....	\$432.71	299 <sup>95</sup>
GPS-12XL GPS receiver .....	386.35	269 <sup>95</sup>
GPS-III GPS handheld mapping unit .....	463.62	299 <sup>95</sup>
GPS-III Plus GPS handheld mapping unit ....	571.80	369 <sup>95</sup>
GA-26 Low prof rem ant/cbl; GPS-III/III Plus ..	99.98	89 <sup>95</sup>
010-10048-00 Mounting bracket; 12CX/XL ..	31.95	
010-10082-00 Power/data cable .....	27.95	
010-10085-00 Cig lighter adapter cable ...	23.95	
010-10111-00 Mtg bkt; GPS-III/III Plus .....	31.95	
010-10117-01 Carrying case .....	12.95	
010-10141-00 PC interface cable .....	38.95	
010-10165-00 PC cable w/cig adapter .....	45.95	
010-10215-00 MapSource US CD;GPS-III Plus .....	99.99	
010-10084-00 Cig adapter; GPS38 .....	39.95	29 <sup>95</sup>
010-10164-00 PC cable/cig adapt; GPS38 ...	50.95	

StreetPilot 12 ch GPS receiver .....	636.35	499 <sup>95</sup>
GA-26 Low prof remote ant w/cable .....	99.98	89 <sup>95</sup>
010-10082-00 Power/data cable .....	27.95	
010-10085-00 Cig lighter adapter .....	23.95	
010-10141-00 PC interface cable .....	38.95	
010-10165-00 PC cable w/cig adapter .....	45.95	
010-10199-03 Carrying case .....	24.95	
NavTalk Analog cellular phone/GPS combo ...	624.99	569 <sup>95</sup>

## GENESYS (GEN)

B-35 2m/440 15" duck .....	\$ 27.95	9 <sup>95</sup>
NMO Mount NMO mount w/16" mount .....	10.95	4 <sup>95</sup>
QS-110 Spkr/mic; Alinco/Icom/Yaesu .....	29.95	6 <sup>95</sup>
QS-110K Speaker/mic for Kenwood .....	29.95	9 <sup>95</sup>
RS-402 5/20/200w 125-525 SWR/pwr .....	139.95	69 <sup>95</sup>
T-05 Throat mic with split plugs .....	84.95	29 <sup>95</sup>
T-05K Throat mic for Kenwood .....	84.95	24 <sup>95</sup>

## GLEN MARTIN (GME)

RT-424 4.5' roof-top tower, 6 sq ft .....	\$162.95	
RT-832 8' roof-top tower, 8 sq ft .....	234.95	
RT-936 9' roof-top tower, 18 sq ft .....	394.95	
RT-1832 17.5' roof-top tower, 12 sq ft .....	528.95	
LB-3755 Set of 8 3/4 x 5" lag bolts .....	9.95	
RA-6024 24" side arm for roof tower .....	41.95	
RA-6048 48" side arm for roof tower .....	53.95	
M-1330A 30' alum tower 12 sq ft w/Hazer ..T	1615.95	
M-1340A 40' alum tower 12 sq ft w/Hazer ..T	1832.95	
M-1350A 50' alum tower 12 sq ft w/Hazer ..T	2070.95	
M-1840A 40' alum tower 16 sq ft w/Hazer ..T	2150.95	
M-1850A 50' alum tower 16 sq ft w/Hazer ..T	2410.95	
M-1860A 60' alum tower 15 sq ft w/Hazer ..T	3356.95	
M-1870A 70' alum tower 15 sq ft w/Hazer ..T	3660.95	
KB-1000 57" side arm; M-13 series .....	81.95	
KB-1300 57" side arm; M-18 series .....	83.95	
LR-8400 Lightning rod kit (complete) .....	89.95	
CW-2540 25' #4 bare copper ground wire ..	19.95	
CW-5040 50' #4 bare copper ground wire ..	39.95	
CW-7540 75' #4 bare copper ground wire ..	58.95	
CW-1040 100' #4 bare copper ground wire ..	66.95	
CW-1240 125' #4 bare copper ground wire ..	97.95	
CW-1540 150' #4 bare copper ground wire ..	117.95	
MC-10 Mast clamp; 2 required .....	24.95	
M-2280 80' galv steel tower 34 sq ft w/Hazer T	11695.95	
M-2210 100' galv steel tower 31 sq ft w/Hazer T	12995.95	
M-2212 120' galv steel tower 30 sq ft w/Hazer T	14800.95	
ES-40 4" dia x 30" earth screw .....	19.95	
ES-60 6" dia x 48" earth screw .....	35.95	
ES-80 8" dia x 66" earth screw .....	67.95	
GR-4400 Ground rod wire clamp .....	6.95	
GR-5080 8' x 5/8" ground rod .....	20.95	
H-2 175 lb load 12 sq ft HD aluminum Hazer	360.95	
H-3 150 lb load 8 sq ft std aluminum Hazer	273.95	
H-4 200 lb load 16 sq ft galv steel Hazer .....	348.95	
BW-8001 Brake winch for H-2/3/4 .....	77.95	

## GLEN MARTIN - continued

HR-2040 Roller bearing set; H-2/3/4 .....	62.95	
HR-6010 T-X plates for H-2/4/5/6 .....	25.95	
HR-6040 Bearing block set; H-5/6 .....	49.95	
HS-1301 Side arm for H-2/3/4/5 .....	64.95	
HP-3000 Kevlar guy cable, 3000# .....	per ft .99	
HP-4500 Kevlar guy cable, 4500# .....	per ft 1.49	
HP-7500 Kevlar guy cable, 7500# .....	per ft 1.99	
M-1049 9' 1.92" OD galv steel mast .....	68.95	
MA-1040* 10' 1.92" OD aluminum mast ...T	79.95	
*Truck, freight collect on MA-1040		
MA-1049 9' 1.92" OD aluminum mast .....	75.95	
MA-1050 5' 1.92" OD aluminum mast .....	62.95	
MA-2069 9' 2.376" OD aluminum mast .....	108.95	
MA-5050 5' 1.33" OD aluminum mast .....	41.95	
ML-1800 Messenger line kit; Glen Martin towers	70.95	
ML-2500 Messenger line kit; Rohn towers ..	74.95	
TB-25 Thrust bearing (2 sealed bearings) ....	89.95	
TB-3806 3/8" x 6" galv turnbuckle .....	17.95	
TB-5009 1/2" x 9" galv turnbuckle .....	23.95	
TB-6212 3/4" x 12" galv turnbuckle .....	40.95	
TL-0470 Terminal lug .....	2.95	
VH8-60 Hazer - for 60' Rohn 45G .....	1410.95	
VH8-70 Hazer - for 70' Rohn 45G .....	1545.95	
VH9-50 Hazer - for 50' Rohn 55G .....	1331.95	
VH9-60 Hazer - for 60' Rohn 55G .....	1455.95	
VH9-70 Hazer - for 70' Rohn 55G .....	1567.95	

All listed GLEN MARTIN items are shipped PREPAID (except MA-1040) (Glen Martin's expense) direct to you from the factory (48 states). We prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your order. Please allow sufficient delivery time. Most truck lines will not unload towers, so please be sure to have enough manpower and/or equipment on hand.

## L.L. GRACE (GRA)

KCT Kansas City Tracker satellite package ...	\$229.95	
KCT/T Kansas City Tracker package/KC Tuner	319.95	

## GROTHE (GRO)

VS-2 Emergency vehicle siren .....	\$ 99.00	89 <sup>95</sup>
VS-2LS/A Window mt siren/amber strobe .....	299.95	
VS-2LS/B Window mt siren/blue strobe .....	299.95	
VS-2LS/R Window mt siren/red strobe .....	299.95	
VS-3 Volunteer vehicle PA/horn w/spkr .....	159.00	129 <sup>95</sup>
VS-4 P/A emergency vehicle siren w/spkr ....	169.00	139 <sup>95</sup>

## GROVE (GRV)

ANT-20 No-Tenna Inside car rcv ant .....	\$ 19.95	4 <sup>95</sup>
BOK-16 Listener's Lawbook .....	9.95	6 <sup>95</sup>
BOK-104 Antenna Factbook .....	9.95	6 <sup>95</sup>
Mini World 100 Mini AM/FM/SW receiver .....	\$ 49.95	
Traveller II Port AM/FM/SW/LW Rcvr/clock .....	89.95	69 <sup>95</sup>
Traveller III Digital AM/FM/SW/LW receiver ..	139.95	119 <sup>95</sup>
G-400ACA AC ps for Yacht Boy 400 .....	12.95	
Yacht Boy 400PE Port AM/FM/SW/LW Rcvr/ps ...	249.95	189 <sup>95</sup>

## HAL (HAL)

DSP-4100 HF DSP modem .....	special order 1295.00	1099 <sup>95</sup>
DXP-38 External DSP HF radio modem .....	395.95	
P-38 HF DSP modem board .....	395.00	295 <sup>95</sup>
RTTY-1 RTTY tuning indicator .....	99.95	
ST-8000 HF modem .....	special order 3495.00	3269 <sup>95</sup>

## HARGER (HRG)

GBIS1814AE 1/8" copper entrance ground bar kit	\$ 27.95	
GBIS1814AE 1/8" copper station ground bar kit	64.95	
GP1868.78AE 1/8" copper single pt gnd panel kit	54.95	

## HEIL (HEI)

PRO-SET-4 Deluxe boom mic/headset/HC-4 ..	\$130.95	
PRO-SET-5 Deluxe boom mic/headset/HC-5 ..	130.95	
PRO-MICRO-4 Boom mic/headset/HC-4 .....	110.95	
PRO-MICRO-5 Boom mic/headset/HC-5 .....	110.95	
PRO-5-4 Boom mic/single headset (HC-4) ...	120.95	

## HEIL - continued

PRO-5-5 Boom mic/single headset (HC-5) ...	120.95	
AD-1-I Pro-Set 8-pin adapter cord for Icom	16.99	
AD-1-K Pro-Set 8-pin adapt cord; Kenwood	16.99	
AD-1-T Pro-Set 4-pin adapt cord; Ten-Tec ..	16.99	
AD-1-Y Pro-Set 8-pin adapter cord; Yaesu	16.99	
AD-1-I-M Pro-Set modular adapt cord; Ico	16.99	
AD-1-K-M Pro-Set modular adapt cord; Ken	16.99	
AD-1-Y-M Pro-Set modular adapt cord; Yae	16.99	
FS-1 Foot switch .....	29.99	
HS-1 Hand switch .....	24.99	
HC-4 DX'ers 'dream machine' mic element ..	29.99	
HC-5 Key microphone element .....	29.99	
HMP In-line microphone preamp; Icom .....	54.99	
HMP-M In-line mic pre/mod plug; IC706/Mkil	54.99	
GM-4 Goldline dual element studio mic w/HC-4	139.95	
GM-5 Goldline dual element studio mic w/HC-5	139.95	
HM-10-4 Microphone with HC-4 element .....	64.99	
HM-10-5 Microphone with HC-5 element .....	64.99	
HM-10-Dual Mic w/HC-4 & HC-5 elements ...	114.99	
CC-1-I HM-10 8-pin cable for Icom .....	29.99	
CC-1-K HM-10 8-pin cable for Kenwood ....	29.99	
CC-1-T HM-10 4-pin cable for Ten-Tec .....	29.99	
CC-1-Y HM-10 8-pin cable for Yaesu .....	29.99	
CC-1-I-M HM-10 modular cable for Icom ..	29.99	
CC-1-K-M HM-10 modular cable; Kenwood	29.99	
CC-1-Y-M HM-10 modular cable for Yaesu	29.99	
MA-1 Clamp and arm .....	64.99	
TB-1 Table base mic stand .....	24.99	
Boom Clip for BM-series .....	5.95	
Ear Pads for BM-series .....	5.95	
Ear Pads for PRO-series .....	8.95	
Ham Radio Handbook .....	12.95	

## HUSTLER (HUS)

RM-80 80m CW 400w PEP resonator .....	\$ 26.95	
RM-75 75m phone 400w PEP resonator .....	26.95	
RM-40 40m 400w PEP resonator .....	24.95	
RM-30 30m 400w PEP resonator .....	24.95	
RM-20 20m 400w PEP resonator .....	21.95	
RM-17 17m 400w PEP resonator .....	21.95	
RM-15 15m 400w PEP resonator .....	15.95	
RM-12 12m 400w PEP resonator .....	15.95	
RM-11 11m 400w PEP resonator .....	15.95	
RM-10 10m 400w PEP resonator .....	15.95	
RM-80S 80m CW 2kw PEP resonator .....	49.95	
RM-75S 75m phone 2kw PEP resonator .....	49.95	
RM-40S 40m 2kw PEP resonator .....	35.95	
RM-20S 20m 2kw PEP resonator .....	28.95	
RM-15S 15m 2kw PEP resonator .....	24.95	
RM-11S 11m 2kw PEP resonator .....	23.95	
RM-10S 10m 2kw PEP resonator .....	23.95	
MO-1 54" mast for fender or deck mount ....	31.95	
MO-2 54" mast for bumper mount .....	31.95	
MO-3 54" no break-over mast .....	23.95	
MO-4 22" mast for special applications .....	19.95	
VP-1 Tri-band adapter .....	5.95	
RSS-2 Resonator spring .....	9.95	
QD-2 Stainless quick disconnect .....	19.95	
L-14-144 12' RG-58, PL-259 to lugs .....	9.95	
L-14-240 20' RG-58, PL-259 to lugs .....	12.95	

## STAINLESS 2" MOBILE BALL MOUNTS

SSM-1 Ball & spring, cadmium hardware .....	\$ 46.95	
SSM-2 Ball, cadmium hardware .....	26.95	
SSM-3 Stainless steel spring .....	24.95	

## 1-1/2" MOBILE BALL MOUNTS

C-32 Chrome plated ball .....	\$ 11.95	
C-30 Chrome plated spring .....	11.95	
C-29 Stainless steel spring .....	17.95	
BM-1 Single strap bumper mt w/C-32 .....	21.95	

## 3/8-24 THREAD MOBILE MOUNTS

HLM Trunk lip mount w/swivel .....	\$ 22.95	
HOT Hustloff trunk lip mt w/swivel .....	23.95	
MBM Super magnet mount w/16' coax .....	19.95	



## HUSTLER - continued

MM-3 Universal mount with 17' coax .....	21.95
RVM Recreational vehicle mount .....	20.95
TGM-1 Trunk groove mount .....	12.95
TLM Trunk lip mount .....	21.95

## HF ANTENNAS

4-BTV 40/20/15/10m 21' trap vertical .....	\$166.95	119 <sup>95</sup>
5-BTV 80/40/20/15/10m 25' trap vertical .....	211.95	149 <sup>95</sup>
30-MTK 30m trap kit for 4-BTV/5-BTV .....	41.95	
6-BTV 80/40/30/20/15/10m 24' trap vert .....	246.95	179 <sup>95</sup>

## VHF/UHF BASE STATION ANTENNAS

G6-144B 2m 6 db 10' vertical antenna .....	\$149.95	114 <sup>95</sup>
G6-270R 2m/440 6db 7.6' base station ant .....	209.95	159 <sup>95</sup>
G7-144 2m 7 db 15' vertical antenna .....	209.95	159 <sup>95</sup>
G7-220 220 MHz 7 db 10' vertical antenna .....	199.95	149 <sup>95</sup>
G6-440 440 MHz 6 db 7' vertical antenna .....	186.95	139 <sup>95</sup>

## BUSINESS BAND ANTENNAS

G7-150-4 7db 167-174 MHz base ant .....	\$229.95	99 <sup>95</sup>
G6-450-4 6db 470-478 MHz base ant .....	209.95	99 <sup>95</sup>

## VHF MOBILE ANTENNAS

BBL-144A 2m FM 3/4" hole mt antenna, 3.4db ..	\$ 39.95
BBLT-144A 2m FM trunk lip mt ant, 3.4 db ..	47.95
CG-144 2m FM 3/4-24 ant, 7' high, 5.2 db ..	31.95
CGT-144 2m FM trunk mt ant, 7' high, 5.2db ..	51.95
CG-220 220 FM 3/4-24 ant, 5.2 db ..	31.95
CGT-220 220 MHz 5.2 db tnk mt ant ..	51.95
FX-2 2m FM 3.4 db magnetic mt antenna .....	33.95
FX-2B 2m FM 3.4 db black mag mt antenna ..	38.95
FX-220 220 FM 3.4 db magnetic mt ant ..	33.95
FX-220B 220 FM 3.4 db black mag mt ant ..	38.95
MKR-2 Radial kit for SF-2/CG-144 .....	20.95
RX-2 2m FM 3.4db magnetic mount ant .....	24.95
RX-220 220 FM 3.4db magnetic mt antenna ..	24.95
RX-440 440 FM 5 db magnetic mt antenna ..	24.95
SF-2 2m FM 3/4-24 ant, 4' high, 3.4 db .....	14.95
SF-220 220 MHz 3/4-24 antenna, 3 db .....	14.95
THF 140-500 MHz 1/4 wave trunk mount ant ..	23.95
UGM 140-500 MHz 1/4 wave BNC mag mt ant ..	21.95
UHT-1 140-500 MHz 1/4 wave roof mt ant .....	14.95

## CB & MONITOR ANTENNAS

DTG 25" fg double-talk gutter mt CB ant .....	\$ 41.95
HQ-27 Power Packer 3/4-24 CB whip .....	17.95
HQ-27M Power Packer trunk mt CB antenna ..	36.95
HQT Dual fg mirror mount CB antenna .....	49.95
HQD Single fg mirror mount CB antenna .....	27.95
RTG-27L 25" CB antenna w/rain gutter mt ..	26.95
RTS-27L 25" CB antenna w/roof mount .....	26.95
DCL Discone monitor ant w/50' coax & plugs ..	34.95
DCX Discone monitor ant; 40-700 MHz .....	23.95
MOR Roof/deck mt tri-band monitor ant .....	18.95
MOT Trunk lip mt tri-band monitor antenna ..	19.95

## HY-GAIN (HYG)

371S Discoverer 7-1 30 or 40m rotatable dip ..	\$263.95	199 <sup>95</sup>
372S Discoverer 7-2 40m 2 el 23' boom .....	601.95	454 <sup>95</sup>
373S Discoverer 7-3 3rd el; 372S; 35' boom ..	371.95	279 <sup>95</sup>
376S 155B/CAS 15m 5 el, 26' boom .....	380.95	289 <sup>95</sup>
189S GRK-88 Ground radial kit .....	81.95	64 <sup>95</sup>
190S RRR-88 Roof radial kit .....	99.95	74 <sup>95</sup>
191S 160MK-88 160m kit for 188S .....	178.95	134 <sup>95</sup>
184 14RMQ Roof kit-12/14AVQ, 18AVT .....	71.95	39 <sup>95</sup>
383S 5BDQS 80/40/20/15/10m 94' trap ant ..	235.95	159 <sup>95</sup>
381S 19PD 80-10 233' 1-band port dip .....	263.95	199 <sup>95</sup>
232S 215DX 2m 15 el beam, 28' boom .....	206.95	139 <sup>95</sup>
231S 70-31DX 430 31 el bm, 24' boom .....	203.95	149 <sup>95</sup>
V-6R 6m 3db deluxe base antenna .....	189.95	149 <sup>95</sup>
338 GPG2B 2m ground plane ant .....	43.95	34 <sup>95</sup>
V-3R 220 ground plane antenna .....	101.95	79 <sup>95</sup>
337S-1 V-4R 440 ground plane ant .....	97.95	74 <sup>95</sup>
216S 216SAT 2m 16el 145.9MHz boom .....	218.95	149 <sup>95</sup>
157S CIC Dipole center insulator/SO-239 ..	23.95	19 <sup>95</sup>
244S BN-4000D 4kw PEP 160-10 dip balun ..	93.95	69 <sup>95</sup>
2400-155 62400155 Boom mic/headset .....	113.95	59 <sup>95</sup>
117 HG-10 10' 2" OD .120 wall steel mast ...	102.95	39 <sup>95</sup>

## HY-GAIN - continued

51472-10 Lower mast support; CD45II/AR40 ..	28.95	19 <sup>95</sup>
50559-10 TSP-1 Tower spacing kit .....	23.95	9 <sup>95</sup>

## ICOM (ICO)

IC-781 Xcvr/Rcvr/ps/tuner/scope ...spec order	8000.00	6599 <sup>95</sup>
CT-17 CI-V level converter .....	169.00	139 <sup>95</sup>
FL-103 2.8 KHz 9 MHz IF SSB filter .....	123.00	109 <sup>95</sup>
OPC-478 PC to radio cable .....	45.95	
UT-36 Voice synthesizer .....	74.95	
IC-775DSP Xcvr/ps/kyer/tuner/IF-DSP .....	4300.00	3599 <sup>95</sup>
CR-282 High stability crystal unit .....	168.00	149 <sup>95</sup>
CT-17 CI-V level converter .....	169.00	139 <sup>95</sup>
FL-53A 250 Hz 455 KHz IF CW filter .....	245.00	199 <sup>95</sup>
FL-101 250 Hz 9 MHz IF CW filter .....	133.00	119 <sup>95</sup>
FL-102 6 KHz 9 MHz IF AM filter .....	94.95	
FL-222 1.9 KHz 455 KHz IF SSB filter .....	249.00	199 <sup>95</sup>
FL-223 1.9 KHz 9 MHz IF SSB filter .....	105.00	99 <sup>95</sup>
FL-232 350 Hz 9 MHz IF CW/RTTY filter .....	113.00	104 <sup>95</sup>
HM-36 Scanning hand mic .....	74.95	
MB-19 Rack mounting handles .....	74.95	
OPC-478 PC to radio cable .....	45.95	
SM-6 Desk microphone .....	128.00	119 <sup>95</sup>
SM-8 2-connector desk mic/up/down scan ..	200.00	169 <sup>95</sup>
SM-20 Deluxe desk microphone .....	259.00	219 <sup>95</sup>
SP-20 Speaker w/audio filter .....	310.00	249 <sup>95</sup>
SP-21 External speaker .....	138.00	119 <sup>95</sup>
UT-66 Voice synthesizer .....	83.95	
IC-756 Xcvr/Rcvr/6m/IF-DSP/tuner/kyer .....	2445.00	1999 <sup>95</sup>
PS-85 Switching power supply .....	406.00	299 <sup>95</sup>
AH-4 80-6m 120w automatic ant tuner .....	348.00	319 <sup>95</sup>
AH-2B Bpr mt/whip; 40-6m use tuner .....	379.00	299 <sup>95</sup>
AH-2B extra whip only .....	49.95	
CR-502 High stability oscillator crystal .....	95.95	
CT-17 CI-V level converter .....	169.00	139 <sup>95</sup>
FL-52A 500 Hz 455 KHz IF CW filter .....	245.00	199 <sup>95</sup>
FL-53A 250 Hz 455 KHz IF CW filter .....	245.00	199 <sup>95</sup>
FL-100 500 Hz 9 MHz IF CW filter .....	133.00	119 <sup>95</sup>
FL-101 250 Hz 9 MHz IF CW filter .....	133.00	119 <sup>95</sup>
FL-222 1.9 KHz 455 KHz IF SSB filter .....	249.00	199 <sup>95</sup>
FL-223 1.9 KHz 9 MHz IF SSB filter .....	105.00	99 <sup>95</sup>
FL-232 350 Hz 9 MHz IF CW/RTTY filter .....	113.00	104 <sup>95</sup>
FL-257 3.3 KHz 455 KHz IF SSB filter .....	225.00	189 <sup>95</sup>
HM-36 Scanning hand mic .....	74.95	
OPC-478 PC to radio cable .....	45.95	
SM-6 Desk microphone .....	128.00	119 <sup>95</sup>
SM-8 2-connector desk mic/up/down scan ..	200.00	169 <sup>95</sup>
SM-20 Deluxe desk microphone .....	259.00	219 <sup>95</sup>
SP-20 Speaker w/audio filter .....	310.00	249 <sup>95</sup>
SP-21 External speaker .....	138.00	119 <sup>95</sup>
UT-102 Voice synthesizer .....	74.95	
IC-746 Xcvr/Rcvr/6m/2m/IF-DSP/tuner/mic ..	2228.00	*1589 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 6/30/99		
PS-85 Switching power supply .....	406.00	299 <sup>95</sup>
AH-4 80-6m 120w automatic ant tuner .....	348.00	319 <sup>95</sup>
AH-2B Bpr mt/whip; 40-6m use tuner .....	379.00	299 <sup>95</sup>
AH-2B extra whip only .....	49.95	
CR-282 High stability crystal unit .....	168.00	149 <sup>95</sup>
CT-17 CI-V level converter .....	169.00	139 <sup>95</sup>
RS-746 Win remote control software .....	79.95	
FL-52A 500 Hz 455 KHz IF CW filter .....	245.00	199 <sup>95</sup>
FL-53A 250 Hz 455 KHz IF CW filter .....	245.00	199 <sup>95</sup>
FL-96 2.8 KHz 455 KHz IF SSB filter .....	190.00	169 <sup>95</sup>
FL-100 500 Hz 9 MHz IF CW filter .....	133.00	119 <sup>95</sup>
FL-101 250 Hz 9 MHz IF CW filter .....	133.00	119 <sup>95</sup>
FL-103 2.8 KHz 9 MHz IF SSB filter .....	123.00	109 <sup>95</sup>
FL-222 1.9 KHz 455 KHz IF SSB filter .....	249.00	199 <sup>95</sup>
FL-223 1.9 KHz 9 MHz IF SSB filter .....	105.00	99 <sup>95</sup>
FL-232 350 Hz 9 MHz IF CW/RTTY filter .....	113.00	104 <sup>95</sup>
OPC-478 PC to radio cable .....	45.95	
SM-6 Desk microphone .....	128.00	119 <sup>95</sup>
SM-8 2-connector desk mic/up/down scan ..	200.00	169 <sup>95</sup>
SM-20 Deluxe desk microphone .....	259.00	219 <sup>95</sup>
SP-21 External speaker .....	138.00	119 <sup>95</sup>
UT-102 Voice synthesizer .....	74.95	
CR-64 High stab oscillator xtal; IC-728 .....	156.00	119 <sup>95</sup>

## ICOM - continued

MB-49 Mobile mounting bkt; IC-738 .....	59.95	39 <sup>95</sup>
UI-7 AM/FM module for IC-728 .....	119.00	109 <sup>95</sup>
IC-707 Xcvr/SW Rcvr w/mic .....	786.00	649 <sup>95</sup>
PS-85 Switching power supply .....	406.00	299 <sup>95</sup>
AH-4 80-6m 120w automatic ant tuner .....	348.00	319 <sup>95</sup>
AH-2B Bpr mt/whip; 40-6m use tuner .....	379.00	299 <sup>95</sup>
AH-2B extra whip only .....	49.95	
CR-338 High stability crystal unit .....	81.95	
CT-17 CI-V level converter .....	169.00	139 <sup>95</sup>
FL-52A 500 Hz 455 KHz IF CW filter .....	245.00	199 <sup>95</sup>
FL-53A 250 Hz 455 KHz IF CW filter .....	245.00	199 <sup>95</sup>
MB-23 Side mount carrying handle .....	15.95	
MB-5 Mobile mount .....	59.95	
SM-6 Desk microphone .....	128.00	119 <sup>95</sup>
SM-8 2-connector desk mic/up/down scan ..	200.00	169 <sup>95</sup>
SM-20 Deluxe desk microphone .....	259.00	219 <sup>95</sup>
SP-7 Small external speaker .....	94.95	
SP-20 Speaker w/audio filter .....	310.00	249 <sup>95</sup>
SP-21 External speaker .....	138.00	119 <sup>95</sup>
UI-9 FM module .....	113.00	104 <sup>95</sup>
UT-30 Tone encoder .....	55.95	
IC-706 Mk II Mini Xcvr/SW Rcvr/6m/2m/DSP ..	1356.00	*999 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 6/30/99		
IC-706 Mk II G Mini Xcvr/Rcvr/6m/2m/440/DSP	1680.00	1399 <sup>95</sup>
PS-85 Switching power supply .....	406.00	299 <sup>95</sup>
AH-4 80-6m 120w automatic ant tuner .....	348.00	319 <sup>95</sup>
AH-2B Bpr m/whip; 40-6m use tuner .....	379.00	299 <sup>95</sup>
AH-2B extra whip only .....	49.95	
AT-180 Auto antenna tuner; HF+6m .....	599.00	499 <sup>95</sup>
OPC-598 23' extension cable for AT-180 ..	73.95	
CR-502 High stability oscillator xtal; Mk II ..	95.95	
CR-282 High stability crystal unit; Mk II G ..	168.00	149 <sup>95</sup>
Suggest dealer installation; CR-502/CR-282, Mk II/Mk II G		
CT-17 CI-V level converter .....	169.00	139 <sup>95</sup>
FL-100 500 Hz 9 MHz IF CW filter .....	133.00	119 <sup>95</sup>
FL-101 250 Hz 9 MHz IF CW filter .....	133.00	119 <sup>95</sup>
FL-103 2.8 KHz 9 MHz IF SSB filter .....	123.00	109 <sup>95</sup>
FL-223 1.9 KHz 9 MHz IF SSB filter .....	105.00	99 <sup>95</sup>
FL-232 350 Hz 9 MHz IF CW/RTTY filter .....	113.00	104 <sup>95</sup>
HM-77A TTP microphone .....	151.00	129 <sup>95</sup>
HM-95 TTP microphone .....	99.95	
MB-62 Mounting bracket for main unit .....	25.95	
MB-63 Mounting bracket for control panel ..	18.95	
MB-65 Mounting base platform .....	35.95	
OPC-478 PC to radio cable .....	45.95	
OPC-581 11.5' separation cable .....	60.95	
OPC-587 16' separation cable .....	79.95	
OPC-599 7+8-pin to 13-pin adapter .....	60.95	
OPC-742 13-pin cable .....	60.95	
SM-6 Desk microphone .....	128.00	119 <sup>95</sup>
SM-8 2-connector desk mic/up/down scan ..	200.00	169 <sup>95</sup>
SM-20 Deluxe desk microphone .....	259.00	219 <sup>95</sup>
OPC-589 8-pin to jack adapt; SM-6/8/20 ..	35.95	
SP-7 Small external speaker .....	94.95	
UT-86 Tone squelch; IC-706 Mk II only .....	69.95	
UT-102 Voice synthesizer .....	74.95	
UT-106 Plug-in DSP; early 706 Mk II only ..	166.00	149 <sup>95</sup>
AH-2A Auto antenna tuner for whip/wire .....	760.00	199 <sup>95</sup>
AH-710 1.9-30 MHz 80' folded dipole .....	360.00	299 <sup>95</sup>
PW-1 160-6m linear amplifier/ps/tuner .....	5995.00	4999 <sup>95</sup>
OPC-137 Adapter cable; older Icom Xcvr ..	25.95	
RECEIVERS		
R-1* .1MHz-1.3GHz AM/FM handheld Rcvr ..	\$650.00	299 <sup>95</sup>
HP-4 Lightweight headphones .....	29.95	
R-2-06 .5M-1.3G AM/FM hand/batts/cgr/clkd ..	244.00	199 <sup>95</sup>
R-2-07* .5MHz-1.3GHz AM/FM hand Rcvr .....	244.00	219 <sup>95</sup>
AD-92SMA SMA- BNC adapter .....	16.95	
BC-127A Extra nicad charger .....	20.95	
CS-R2 DOS programming software; R-2 .....	13.95	
OPC-474 Cloning cable (R-2 to R-2) .....	18.95	
OPC-478 PC - radio programming cable ..	45.95	
HP-4 Lightweight headphones .....	29.95	
LC-146 Carrying case .....	38.95	
SP-13 Earphone .....	4.95	



# PRICE GUIDE

## ICOM - continued

	Reg	Sale
<b>R-10-05</b> .5M-1.3G AM/FM/SSB hand/cell blkd	503.00	359 <sup>95</sup>
<b>CS-R10 &amp; OPC-478 FREE direct from Icom thru 6/30/99!</b>		
<b>R-10-15*</b> .5MHz-1.3GHz AM/FM/SSB HH Rcvr	503.00	359 <sup>95</sup>
<b>CS-R10 &amp; OPC-478 FREE direct from Icom thru 6/30/99!</b>		
<b>CP-12L</b> Right angle cig cable w/filter	36.95	
<b>CS-R10</b> DOS programming software; R-10	13.95	
<b>OPC-474</b> Cloning cable (R-10 to R-10)	18.95	
<b>OPC-478</b> PC - radio programming cable	45.95	
<b>CSW-R10</b> Windows prog soft/cable; R-10	52.95	
<b>CT-17</b> CI-V level converter	169.00	149 <sup>95</sup>
<b>HP-4</b> Lightweight headphones	29.95	
<b>LC-140</b> Carrying case for R-10	38.95	
<b>OPC-254L</b> Right angle mini DC pwr cable	14.95	
<b>SP-13</b> Earphone	4.95	
<b>CK-70</b> (EX-299) 12v DC option; R-7000	41.95	
<b>FL-32A</b> 500 Hz CW filter; R-71A	126.00	99 <sup>95</sup>
<b>FL-63A</b> 250 Hz CW filter; R-71A	121.00	89 <sup>95</sup>
<b>UI-8</b> FM unit; R-72A	119.00	59 <sup>95</sup>
<b>R-100*</b> 1MHz-1.856GHz AM/FM 12v Rcvr	1008.00	849 <sup>95</sup>
<b>R-100-11</b> 1M-1.856Gz am/fm 12v/cell blkd	1008.00	849 <sup>95</sup>
<b>AH-7000</b> 25-1000 MHz discone ant w/coax	206.00	179 <sup>95</sup>
<b>CP-11</b> Cig cord w/noise filter	40.95	
<b>HP-4</b> Lightweight headphones	29.95	
<b>PCR-100-12</b> .01-1300 am/fm PC Rcvr/cell blkd	359.00	249 <sup>95</sup>
<b>PCR-100-08*</b> .01-1300 PC controlled Rcvr	359.00	249 <sup>95</sup>
<b>AH-7000</b> 25-1000 MHz discone ant w/coax	206.00	179 <sup>95</sup>
<b>PCR-1000</b> .5-1300 am/fm/SSB PC Rcvr/cell blkd	629.00	399 <sup>95</sup>
<b>PerCon Spectrum FREE direct from Icom thru 6/30/99!</b>		
<b>PCR-1000-03/07*</b> .5-1300 PC control Rcvr	629.00	399 <sup>95</sup>
<b>PerCon Spectrum FREE direct from Icom thru 6/30/99!</b>		
<b>AH-7000</b> 25-1000 MHz discone ant w/coax	206.00	179 <sup>95</sup>
<b>UT-106</b> Plug-in DSP unit; PCR-1000	166.00	149 <sup>95</sup>
<b>R-8500</b> 1M - 2G receiver/cell blocked	2156.00	1499 <sup>95</sup>
<b>R-8500-03*</b> 1MHz - 2GHz receiver	2156.00	1499 <sup>95</sup>
<b>AH-7000</b> 25-1000 MHz discone ant w/coax	206.00	179 <sup>95</sup>
<b>CR-293</b> High stability xtal unit	380.00	329 <sup>95</sup>
<b>FL-52A</b> 500 Hz CW filter	245.00	199 <sup>95</sup>
<b>MB-12</b> Mobile mount	59.95	
<b>MB-23</b> Side mount carrying handle	15.95	
<b>RS-R8500</b> PC control soft w/RS-232 cable	80.95	
<b>SP-7</b> Small external speaker	94.95	
<b>SP-21</b> External speaker	138.00	119 <sup>95</sup>
<b>TV-R7100</b> TV/FM adapter; R-8500/R-7100	426.00	369 <sup>95</sup>
<b>UT-102</b> Voice synthesizer	74.95	
<b>R-9000*</b> 1-1999.8MHz Rcvr/scope spec order	6579.00	5399 <sup>95</sup>
<b>SP-20</b> Speaker w/audio filter	310.00	249 <sup>95</sup>
<b>UT-36</b> Voice synthesizer	74.95	

\*United States & state government agencies or a political subdivision thereof and communications utility companies and their legal agents **ONLY** may purchase unblocked models of R-1/R-2/R-10/R-100/PCR-100/PCR-1000/R-7000/R-8500 and/or R-9000 for official government or communications utility company use only. Mail or FAX purchase order to AES. Exports: inquire.

## 2m TRANSCEIVERS

<b>UT-101</b> DTMF unit for IC-2000H	\$ 28.95	
<b>IC-2100H</b> 55w 2m FM Xcvr/TTP mic	244.00	199 <sup>95</sup>
<b>BC-96</b> Microphone holder	43.95	
<b>CP-13L</b> Cig cable w/filter for BC-96	40.95	
<b>OPC-288L</b> DC power cable for BC-96	19.95	
<b>CS-2100</b> DOS cloning software	13.95	
<b>OPC-478</b> PC to radio cloning cable	45.95	
<b>CSW-MOB</b> Win prog soft w/cable; 2100H	50.95	
<b>EX-1513</b> Infrared sub receiver	28.95	
<b>EX-1759</b> Infrared receiver	110.95	99 <sup>95</sup>
<b>HM-90A</b> Wireless microphone	209.00	159 <sup>95</sup>
<b>HS-62</b> Flexible mobile mic	70.95	
<b>MB-17A</b> Quick release bracket	49.95	
<b>OPC-347</b> 23' DC power cable	46.95	
<b>OPC-440</b> Mic extension cable	85.95	
<b>OPC-441</b> Speaker extension cable	33.95	
<b>OPC-474</b> Radio to radio cloning cable	18.95	
<b>OPC-589</b> 8-pin to jack adapter	35.95	

## ICOM - continued

	Reg	Sale
<b>OPC-647</b> 8.2' mic extension cable	54.95	
<b>UT-67</b> Tone squelch unit	124.00	49 <sup>95</sup>
<b>UT-85</b> Tone squelch unit	76.95	69 <sup>95</sup>
<b>IC-281H</b> 50w 2m FM Xcvr/TTP/9600 baud	513.00	199 <sup>95</sup>
<b>IC-207H</b> 45w 2m/35w 440 FM Xcvr/TTP	453.00	*349 <sup>95</sup>
<b>*Sale price w/instant coupon; coupon expires 6/30/99</b>		
<b>BC-96</b> Microphone holder	43.95	
<b>CP-13L</b> Cig cable w/filter for BC-96	40.95	
<b>OPC-288L</b> DC power cable for BC-96	19.95	
<b>CS-207</b> DOS prog software; IC-207H	13.95	
<b>OPC-646</b> Cloning cable	89.95	
<b>CSW-MOB</b> Win prog soft w/cable; 207H	50.95	
<b>EX-1759</b> Infrared receiver	110.95	99 <sup>95</sup>
<b>HS-62</b> Flexible mobile mic	70.95	
<b>HM-90A</b> Wireless microphone	209.00	159 <sup>95</sup>
<b>MB-17A</b> Quick release bracket	49.95	
<b>MB-58</b> Remote controller bracket	39.95	
<b>OPC-347</b> 23' DC power cable	46.95	
<b>OPC-440</b> Mic extension cable	85.95	
<b>OPC-441</b> Speaker extension cable	33.95	
<b>OPC-589</b> 8-pin to jack adapter	35.95	
<b>OPC-600</b> 11.5' separation kit	45.95	
<b>OPC-601</b> 23' separation kit	60.95	
<b>OPC-647</b> 8.2' mic extension cable	54.95	
<b>RMK-3</b> Package of MB-58/OPC-600/OPC-647	84.95	
<b>OPC-439</b> 23' separation kit; IC-2700H	60.95	49 <sup>95</sup>
<b>UT-89</b> Tone scan/decode unit; IC-2350H	110.00	99 <sup>95</sup>
<b>IC-2710H</b> 50w 2m/35w 440 FM Xcvr/TTP	560.00	469 <sup>95</sup>
<b>BC-96</b> Microphone holder	43.95	
<b>CP-13</b> Cig cable w/filter for BC-96	40.95	
<b>OPC-288</b> DC power cable for BC-96	19.95	
<b>CS-2710</b> DOS prog software; IC-2710H	13.95	
<b>OPC-646</b> Cloning cable	89.95	
<b>CSW-MOB</b> Win prog soft w/cable; 2710H	50.95	
<b>EX-1513</b> Infrared sub receiver	28.95	
<b>EX-1759</b> Infrared receiver	110.00	99 <sup>95</sup>
<b>HM-90A</b> Wireless microphone	209.00	159 <sup>95</sup>
<b>HS-62</b> Flexible mobile mic	70.95	
<b>MB-17A</b> Quick release bracket	49.95	
<b>MB-58</b> Remote controller bracket	39.95	
<b>MB-65</b> Mounting base platform	35.95	
<b>OPC-347</b> 23' DC power cable	46.95	
<b>OPC-440</b> Mic extension cable	85.95	
<b>OPC-441</b> Speaker extension cable	33.95	
<b>OPC-589</b> 8-pin to jack adapter	35.95	
<b>OPC-600</b> 11.5' separation kit	45.95	
<b>OPC-601</b> 23' separation kit	60.95	
<b>OPC-647</b> 8.2' mic extension cable	54.95	
<b>RMK-3</b> Package of MB-58/OPC-600/OPC-647	84.95	
<b>UT-49</b> DTMF decoder unit	74.95	
<b>UT-104</b> Tone squelch unit	39.95	
<b>IC-2800H</b> 50w 2m/35w 440 FM Xcvr/9600	670.00	569 <sup>95</sup>
<b>CS-2800</b> DOS cloning software	13.95	
<b>OPC-478</b> PC to radio cloning cable	45.95	
<b>EX-1513</b> Infrared sub receiver	28.95	
<b>EX-1759</b> Infrared receiver	110.00	99 <sup>95</sup>
<b>HM-90A</b> Wireless microphone	209.00	159 <sup>95</sup>
<b>MB-17A</b> Quick release bracket	49.95	
<b>MB-65</b> Mounting base platform	35.95	
<b>OPC-347</b> 23' DC power cable	46.95	
<b>OPC-440</b> Mic extension cable	85.95	
<b>OPC-589</b> 8-pin to jack adapter	35.95	
<b>OPC-647</b> 8.2' mic extension cable	54.95	
<b>SP-10</b> Slim-line external speaker	69.95	
<b>UT-49</b> DTMF decoder unit	74.95	
<b>IC-821H</b> 2m/430 SSB/FM sat Xcvr/9600/mic	1695.00	1399 <sup>95</sup>
<b>PS-85</b> Switching power supply	406.00	299 <sup>95</sup>
<b>AG-25</b> 2m mast mounted GaSfET preamp	220.00	189 <sup>95</sup>
<b>AG-35</b> 430 MHz mast mounted preamp	228.00	199 <sup>95</sup>
<b>CR-293</b> High stability xtal unit	380.00	329 <sup>95</sup>
<b>FL-132</b> 500 Hz main receiver CW filter	133.00	119 <sup>95</sup>
<b>FL-133</b> 500 Hz sub band receiver CW filter	133.00	119 <sup>95</sup>
<b>HM-12</b> Scan hand microphone	74.95	
<b>MB-5</b> Mobile mount	59.95	

## ICOM - continued

	Reg	Sale
<b>MB-23</b> Side mount carrying handle	15.95	
<b>SM-6</b> Desk microphone	128.00	119 <sup>95</sup>
<b>SM-20</b> Deluxe desk microphone	259.00	219 <sup>95</sup>
<b>SP-7</b> Small external speaker	94.95	
<b>SP-20</b> Speaker w/audio filter	310.00	249 <sup>95</sup>
<b>SP-21</b> External speaker	138.00	119 <sup>95</sup>
<b>UT-36</b> Voice synthesizer; 820H	74.95	
<b>UT-50</b> Tone decoder	74.95	
<b>UT-84</b> Tone squelch unit; 821H	110.00	99 <sup>95</sup>
<b>UT-102</b> Voice synthesizer; 821H	74.95	
<b>MB-50</b> Rem controller bkt; Delta100H	D	29.95
<b>OPC-332</b> 11.5' sep kit; Delta100H	D	30.95
<b>OPC-333</b> 23' sep kit; Delta100H	D	38.95
<b>OPC-335</b> 16.4' spkr cbl; Delta100H	D	40.95
<b>Accessories for IC-2AT</b>		
<b>BC-25U</b> Extra wall cgr; BP-3 only	\$ 35.95	29 <sup>95</sup>
<b>BC-35</b> Drop-in rapid charger	150.00	119 <sup>95</sup>
<b>BM-112U/BC-16U</b> Wall cgr; 5A/7/8 only	32.95	29 <sup>95</sup>
<b>BP-2</b> 425ma 7.2v long life battery	85.95	49 <sup>95</sup>
<b>BP-3</b> 250ma 8.4v battery	65.95	49 <sup>95</sup>
<b>BP-4</b> Alkaline battery case	35.95	29 <sup>95</sup>
<b>BP-5</b> 425ma 10.8v high power battery	109.00	79 <sup>95</sup>
<b>BP-5A</b> 425ma 10.8v direct charge battery	109.00	79 <sup>95</sup>
<b>BP-7</b> 425ma 13.5v 5w battery	121.00	99 <sup>95</sup>
<b>BP-8</b> 800ma 8.4v long life battery	120.00	89 <sup>95</sup>
<b>BP-70</b> 270ma 13.2v batt; 2GAT/32AT	113.00	69 <sup>95</sup>
<b>CP-1</b> Cig cgr; BP-3/7/8/DC cord	26.95	19 <sup>95</sup>
<b>CP-10</b> Battery separation cable/clip	51.00	14 <sup>95</sup>
<b>CP-11</b> Cig cord w/noise filter	40.95	
<b>DC-1</b> DC operation module	40.95	34 <sup>95</sup>
<b>FA-2</b> Extra 2m flexible antenna	29.95	19 <sup>95</sup>
<b>HH-SS</b> Handheld shoulder strap	29.00	6 <sup>95</sup>
<b>HM-9</b> Speaker/mic	D	59.95
<b>MB-16</b> Window/car door mount	D	40.00
<b>MB-16D</b> Mobile mtg bkt for HT	40.00	9 <sup>95</sup>
<b>Accessories for IC-21A</b>		
<b>AD-26</b> Batt pack adapt; rapid cgr	\$ 18.00	6 <sup>95</sup>
<b>HM-9L</b> Speaker/mic	D	59.00
<b>IC-T2H</b> 6w 2m FM HT/8 AA nicads/cgr	194.00	169 <sup>95</sup>
<b>AD-81</b> Adapter for BC-119-11	17.95	
<b>BC-119-11</b> Desk charger (adapter required)	103.00	94 <sup>95</sup>
<b>BP-19A</b> AA alkaline battery case	18.95	
<b>BP-195</b> 9.6v 700ma nicad battery	42.95	
<b>BP-196</b> 9.6v 1050ma nicad battery	53.95	
<b>CP-12L</b> Rt angle cig charge cable w/filter	36.95	
<b>CS-T2</b> DOS prog software for IC-T2	13.95	9 <sup>95</sup>
<b>OPC-474</b> Cloning cable (T2 to T2)	18.95	
<b>OPC-478</b> PC to radio cloning cbl; T2	45.95	
<b>CSW-HH4</b> Win prog soft w/cable; T2	50.95	
<b>HM-46</b> Slim-line speaker/mic	45.95	
<b>HM-54</b> Hvy duty spkr/mic	83.95	
<b>HM-75A</b> Remote control microphone	70.95	
<b>HS-51</b> Headset w/VOX	96.95	
<b>LC-145</b> Carrying case for IC-T2	38.95	
<b>OPC-254L</b> Right angle mini DC chg cable	14.95	
<b>SP-13</b> Earphone	4.95	
<b>LC-123</b> Vinyl case; Z1A; BP170/71/72	D	38.95
<b>UT-93</b> Tone squelch; early IC-Z1A	D	83.00
<b>IC-T22A</b> 5w 2m FM HT/batt/cgr/TTP	283.00	239 <sup>95</sup>
<b>IC-T7H</b> 6w 2m/440 HT/batt/cgr/TTP	330.00	279 <sup>95</sup>
<b>IC-W32A</b> 5w 2m/440 FM HT/batt/cgr/TTP/tones	365.00	*289 <sup>95</sup>
<b>*Sale price w/instant coupon; coupon expires 6/30/99</b>		
<b>AD-51</b> Batt pack adapter; W32A	14.95	
<b>AD-56</b> Batt pack adapter; T22A/T7	18.95	
<b>BC-119-11</b> Desk charger (adapter required)	103.00	94 <sup>95</sup>
<b>BC-110A/BC-74</b> Extra wall cgr; BP-111-114	40.95	
<b>BP-170</b> Battery case	35.95	
<b>BP-171</b> 4.8v 700ma battery	83.00	49 <sup>95</sup>
<b>BP-172</b> 4.8v 950ma battery	91.95	
<b>BP-173</b> 9.6v 600ma battery	150.00	139 <sup>95</sup>
<b>BP-180</b> 7.2v 600ma battery	83.95	
<b>CP-12</b> Cig lighter cable w/filter	36.95	
<b>CP-12L</b> Right angle cig cable w/filter	36.95	
<b>CS-T7</b> DOS prog software for IC-T7	13.95	9 <sup>95</sup>



## ICOM - continued

CSW-32	DOS prog software for IC-W32A	13.95	9 <sup>95</sup>
OPC-474	Cloning cbl (T7/32A to T7/32A)	18.95	
OPC-478	PC to radio cloning cbl; T7/W32A	45.95	
CSW-HH4	Win prog soft/cbl; W32A/T7	50.95	
FA-1443B	Extra 2m/440 dual band flex ant	29.95	
HM-46	Slim-line speaker/mic	45.95	
HM-46L	Slim-line spkr/mic, rt angle plug	45.95	
HM-54	Heavy duty spkr/mic	83.95	
HM-75A	Remote control microphone	70.95	
HS-10	Boom mic/headset	69.95	
HS-10SA	VOX unit	69.95	
HS-10SB	PTT switchbox	69.95	
HS-85	Headset w/VOX	89.95	
LC-125	Vinyl case; T22A w/BP170/171/172	38.95	
LC-126	Vinyl case; T22A w/BP173	38.95	
LC-128	Vinyl case; IC-W32A	38.95	
LC-136	Vinyl case; T7 w/BP170/171/172	38.95	
LC-137	Vinyl case; T7 w/BP173/180	38.95	
MB-30	Mobile/wall bracket	41.95	
NCP-1	Nylon chest pack	44.95	39 <sup>95</sup>
OPC-254	Mini DC power cable	14.95	
OPC-254L	Right angle mini DC pwr cable	14.95	
SP-13	Earphone	4.95	
UT-94	Tone squelch unit; T22A	55.95	
IC-Q7ABC	300mw 2m/440 HT/batts/cgr	239.00	179 <sup>95</sup>
AD-92SMA	SMA-BNC adapter	16.95	
BC-127A	Extra nicad charger	20.95	
HM-46	Slim-line speaker/mic	45.95	
HS-85	Headset w/VOX	89.95	
SP-13	Earphone	4.95	
OPC-782	Plug adapt cbl; HM46/HS85/SP13	16.95	
LC-146	Carrying case	38.95	
IC-T8A/HP	5w 6m/2m/440 HT/BP200/cgr/TTP	419.00	*309 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 6/30/99			
BP-197 batt case FREE with IC-T8A/HP! Limited Time!			
IC-T81A	5w 6m/2m/440/1w 1.2 HT/batt/cgr/TTP	479.00	399 <sup>95</sup>
AD-87	Batt pack adapter for rapid charger	8.95	
AD-88	PCB board; orig BC-119-11	29.95	
AD-92SMA	SMA-BNC adapter	16.95	
BC-119-31	Desk charger (adapter required)	107.00	99 <sup>95</sup>
BP-197	3 AA battery case	24.95	
BP-198	4.8v 700ma NiMH battery	59.95	
BP-199	6v 700ma NiMH battery	70.95	
BP-200	9.6v 680ma NiMH battery	85.95	
CP-12	Cig lighter cable w/filter	36.95	
CP-12L	Right angle cig cable w/filter	36.95	
CS-T8K	DOS prog software w/cable; IC-T8A	58.95	
CS-T81	DOS cloning software; IC-T81A	13.95	
OPC-474	Cloning cable (radio to radio)	18.95	
OPC-478	PC to radio cloning cable	45.95	
CSW-HH4	Win prog soft w/cable; T8A	50.95	
HM-46	Slim-line speaker/mic	45.95	
HM-54	Heavy duty spkr/mic	83.95	
HM-75A	Remote control microphone	70.95	
HS-51	Headset w/VOX	96.95	
HS-85	Headset w/VOX	89.95	
LC-147	Carrying case; IC-T8A/HP	24.95	
LC-148	Carrying case; IC-T81A	24.95	
OPC-254	Mini DC power cable	14.95	
OPC-254L	Right angle mini DC pwr cable	14.95	
SP-13	Earphone	4.95	
BP-130	Battery case; W21AT	35.95	24 <sup>95</sup>
BP-131	900ma 7.2v batt/mic; W21AT	133.00	69 <sup>95</sup>
BP-132	600ma 12v batt/mic; W21AT	150.00	89 <sup>95</sup>
HM-75	Spkr/mic w/rem control; W21AT	70.95	59 <sup>95</sup>
<b>Accessories for IC-2SAT/2SRA/24AT/W2A</b>			
AH-20	Replacement rcv ant; IC-2SRA	\$ 28.95	24 <sup>95</sup>
BA-12	Drop-in charger adapter	29.95	24 <sup>95</sup>
BC-110A/BC-74	Wall cgr; BP-111-114	40.95	34 <sup>95</sup>
BP-82	7.2v 300ma battery	83.00	49 <sup>95</sup>
BP-83	7.2v 600ma battery	90.95	69 <sup>95</sup>
BP-84	7.2v 1000ma battery	120.00	89 <sup>95</sup>
BP-90	AA alkaline battery case	35.95	29 <sup>95</sup>

## Reg Sale

## ICOM - continued

MB-22	Alligator belt/pocket clip	15.95	6 <sup>95</sup>
IC-2GXAT/HP	7w 2m HT/batt/cgr/TTP	274.00	229 <sup>95</sup>
AD-25	Battery charger adapter	63.95	
AD-28	Batt pack adapter for rapid charger	18.95	
BC-105A/BC-77	Extra wall charger	40.95	
BC-119-11	Desk charger (adapter required)	103.00	94 <sup>95</sup>
BP-130A	Battery case	35.00	24 <sup>95</sup>
BP-132A	600ma 12v battery/mic	150.00	89 <sup>95</sup>
BP-157A	900ma 7.2v battery	85.95	
BP-160	700ma 7.2v battery	66.00	39 <sup>95</sup>
BP-174	600ma 12v battery	98.95	
CP-13	Cig cable w/filter	40.95	
CP-13L	Right angle cig cable w/filter	40.95	
HM-46	Slim-line speaker/mic	45.95	
HM-46L	Slim-line spkr/mic, rt angle plug	45.95	
HM-54	Heavy duty spkr/mic	83.95	
HM-55A	Speaker/mic w/TTP	159.00	79 <sup>95</sup>
HS-51	Headset w/VOX	96.95	
LC-116	Carrying case; BP-130A/157A/160	38.95	
LC-117	Carrying case for BP-132A	38.95	
MB-30	Mobile/wall bracket	41.95	
OPC-288	Mini DC power cable	19.95	
OPC-288L	Rt angle mini DC pwr cable	19.95	14 <sup>95</sup>
SP-13	Earphone	4.95	
UT-49	DTMF decoder unit	74.95	
AD-22	External batt chg adapt; D1A	50.95	24 <sup>95</sup>
AD-27	Batt pack adapt; rapid cgr; D1A	14.95	9 <sup>95</sup>
BP-101	700ma 7.2v batt; Delta-1A	94.00	49 <sup>95</sup>
LC-82	Vinyl case; Delta-1A w/BP-103	35.95	14 <sup>95</sup>
UT-70	Tone encoder/decoder; D1A	200.00	99 <sup>95</sup>
AD-44	Batt adapt; rapid cgr; T21A	18.95	4 <sup>95</sup>
LC-109	Vinyl case; BP151/159; T21A	38.95	19 <sup>95</sup>
LC-110	Vinyl case; BP-153; ICT21A	38.00	6 <sup>95</sup>
LC-111	Vinyl case; BP-152; IC-T21A	38.95	19 <sup>95</sup>
RP-1520	25w 2m FM repeater/ps spec order	3025.00	2499 <sup>95</sup>
RP-1520 requires Icom service dept. set-up; \$72 minimum			
<b>430/440 MHz &amp; 1.2 GHz EQUIPMENT</b>			
IC-481H	35w 440 FM/TTP/9600 baud	\$579.00	399 <sup>95</sup>
RP-4020/50w	50w 440 repeater/ps spec order	3200.00	2649 <sup>95</sup>
RP-4020 requires service dept. set-up; \$72 minimum			
AG-1200	1.2 GHz mast mt preamp	189.00	169 <sup>95</sup>
MB-21	Bracket; IC-901 controller unit	26.00	4 <sup>95</sup>
<b>ACCESSORIES</b>			
CT-16	Satellite interface unit	\$160.00	144 <sup>95</sup>
CT-17	CI-V level converter	169.00	139 <sup>95</sup>
HM-12	Scan hand microphone	74.95	
HM-14	Scan/TTP microphone	113.00	99 <sup>95</sup>
HM-56A	Autodial TTP mic	173.00	149 <sup>95</sup>
MB-23	Side mount carrying handle	15.95	
OPC-137	Adapter cable; older Icom Xcvr	25.95	
PS-85	Power supply	406.00	299 <sup>95</sup>
SM-6	Electret desk microphone	128.00	119 <sup>95</sup>
SM-8	2-connector desk mic w/up/down scan	200.00	169 <sup>95</sup>
SM-20	Deluxe desk microphone	259.00	219 <sup>95</sup>
SP-5	Mobile speaker	54.95	
SP-7	Small external speaker	94.95	
SP-10	Slim-line external speaker	69.95	
SP-12	Slim-line speaker w/visor clip	44.95	
SP-20	Speaker w/audio filter	310.00	249 <sup>95</sup>
<b>CONSUMER ELECTRONICS</b>			
A-22	5w PEP compact Navicom air handheld	\$720.00	549 <sup>95</sup>
UT-14	Tone unit for IC-U18	115.00	9 <sup>95</sup>
IC-F10-1	2w 146-174MHz 24 ch HT	495.00	289 <sup>95</sup>
AD-54	Cgr adapter; BM113U; F10/F20	34.00	19 <sup>95</sup>
BM-113U	Trickle charger; F10/F20	26.00	19 <sup>95</sup>
IC-M3A	5w marine handheld w/AA nicads	300.00	189 <sup>95</sup>
IC-M45W	White 25w VHF marine Xcvr	319.00	199 <sup>95</sup>
M-710 (21)	150w HF marine SSB spec order	2100.00	1399 <sup>95</sup>
M-710-05 (22)	150w 1.6-27.5 SSB spec order	2400.00	1599 <sup>95</sup>
AT-130	HF marine auto ant tuner spec order	595.00	449 <sup>95</sup>
IC-4008A	Family radio service handheld	160.00	109 <sup>95</sup>
HM-46	Slim-line speaker/mic	45.95	

## Reg Sale

## ICOM - continued

HS-85	Headset w/VOX	89.95	
<b>IDIDOM PRESS (IDI)</b>			
K-3	Logikey CW keyer	\$129.95	119 <sup>95</sup>
HK-3	Hook-up kit	10.95	
<b>INTERFLEX (INT)</b>			
dspGOLD	Software for AEA DSP-2232	\$129.95	89 <sup>95</sup>
<b>International Ant (IAC)</b>			
160m double Bazooka	248' antenna	\$195.95	
80m double Bazooka	121' antenna	135.95	
40m double Bazooka	64' antenna	115.95	
<b>ISOTRON (ISO)</b>			
160C	160m 9.5' x 16" x 15" 100 KHz bandwidth ant	\$169.95	
80	80m 32" x 16" x 15" 110 KHz bandwidth ant	95.95	
40	40m 22" x 16" x 15" 250 KHz bandwidth ant	85.95	
20	20m 21" x 8" x 4" 350 KHz bandwidth ant	74.95	
15	15m 21" x 1.5" x 4" 450 KHz bandwidth ant	64.95	
10	10m 16" x 1.5" x 4" 1 MHz bandwidth ant	64.95	
80/40 Combo*	80/40m 32" x 16" x 30" ant	168.95	
20/15/10 Combo*	20/15/20m combo ant	187.95	
*Coaxial "T"s & jumpers required for combos - not included			
<b>JPS (JPS)</b>			
ANC-4	Antenna noise canceller	\$195.00	189 <sup>95</sup>
NF-60	Auto DSP audio spectral notch filter	160.00	99 <sup>95</sup>
NIR-10	Dlx noise/notch DSP bandpass filter	299.95	189 <sup>95</sup>
NIR-12	Dual DSP noise reduction/filter unit	375.00	349 <sup>95</sup>
Power Pack	115vac/12vdc adapter	16.95	
SDK-12	Software development kit; NIR-12	35.95	
NRF-7	Noise reducer and filter unit	219.95	159 <sup>95</sup>
Power Pack	115vac/12vdc adapter	16.95	
<b>JSC (JSC)</b>			
JRR-520	5-wire rotor cable	.....Δ, per ft.	14 <sup>95</sup>
JRR-520	.....Δ, 100 ft. Roll		12 <sup>95</sup>
JRR-520	.....Δ, 500 ft. Roll		44 <sup>95</sup>
JRR-520	.....Δ, 1000 ft. Roll		79 <sup>95</sup>
<b>K-COM (KCO)</b>			
RF-1	Modular telephone 3-30 MHz RFI filter	\$ 16.95	
RF-1/Low	Modular phone 5-3 MHz RFI filter	16.95	
RF-1/2-line	2-line modular 3-30 MHz RFI filt	22.95	
RF-1/coiled	Coiled cord modular 3-30MHz filt	22.95	
RF-2	Hard-wired telephone 3-30 MHz RFI filt	10.95	
<b>KLM (KLM)</b>			
KT-34XA	20-15-10m, 6 el, 32' boom, 9 db	Δ \$858.00	659 <sup>95</sup>
2M-4X	2m 4 el rear mt beam, 4.2' bm, 8.5db	Δ 81.00	59 <sup>95</sup>
2M-11X	2m 11 el beam, 15' bm, 12.5 db	Δ 108.00	84 <sup>95</sup>
2M-14C	2m circ 14 el beam, 12.9'bm, 11db/CS3	Δ 211.00	159 <sup>95</sup>
2M-14CM	2m circ 14 el beam, no switcher	Δ 169.00	129 <sup>95</sup>
2M-16LBXM	2m 16 el beam, 28' bm, 14.5db	Δ 244.00	189 <sup>95</sup>
2M-20LBX	2m 20 el beam, 38.5' boom	Δ 316.00	239 <sup>95</sup>
2M-22CM	2m circ 22 el beam, no switcher	Δ 237.00	179 <sup>95</sup>
JV-2	2m 5' vertical antenna, 3 db	Δ 131.00	49 <sup>95</sup>
220-14X	220 14 el beam, 14.5' bm, 13.5db	Δ 142.00	109 <sup>95</sup>
432-20LBX	432 20 el, 12.33'bm, 15.3db	Δ 189.00	149 <sup>95</sup>
432-30LBX	432 30 el beam, 22'bm, 17.3db	Δ 222.00	169 <sup>95</sup>
435-18C	432 cir 18el, 7'bm, 12db/CS2	Δ 267.00	199 <sup>95</sup>
1.2-24LBX	1.2GHz 24 e, 6.6' boom, 16.2db	Δ 155.00	119 <sup>95</sup>
CS-2	432 antenna circularity switch	Δ 85.00	69 <sup>95</sup>
5' 1 1/2"	OD fiberglass mast	Δ 40.00	24 <sup>95</sup>
440-2N	432 MHz - for 2 ants, w/type N	Δ 81.95	59 <sup>95</sup>
<b>KACHINA (KAC)</b>			
505-DSP/505-AT2	PC HF Xcvr/tuner installed	2419.95	2199 <sup>95</sup>
505-AA	Amp adapt; other than 12vdc spec ord	45.95	
505-ECH	External cover for control head	25.95	
505-MB	Mobile mount bracket	40.95	
505-SM	Rubber shock mounts; 505-MB	20.95	
505-RC	Rem cont interface; need 2 spec ord	298.95	
505-TK	Tuning knob; need serial port spec order	199.95	
970055	25' control head cable	49.95	
970056	75' control head cable	89.95	



# PRICE GUIDE

## KACHINA - continued

Reg Sale

970057 25' RS-232 cable .....	16.95	
970058 75' RS-232 cable .....	37.95	

## KC Tracker (See GRACE)

## KANTRONICS (KAN)

Data Engine TNC w/no modems .....	D \$319.95	199 <sup>95</sup>
Data Engine w/DE-1200 modem .....	D 389.95	249 <sup>95</sup>
DE-1200 1200 baud modem .....	D 89.95	29 <sup>95</sup>
KPC-3 Plus/128K Small packet TNC/128K RAM	174.95	
KPC-3 Plus User's Guide (comes w/KPC3+) .....	Δ 24.95	19 <sup>95</sup>
KPC-9612 Plus/128K 9600 controller/128K .....	349.95	
128K 128K memory upgrade; KPC-3/9612 .....	24.95	
KAM Plus All Mode Communicator .....	389.95	369 <sup>95</sup>
KAM 98 Single port multi-mode dig controller	449.95	399 <sup>95</sup>
12VDC Adaptor 300ma adapt; KAM Plus/KPC3	9.95	
Host Master II+ IBM software .....	89.95	
Package 1 Enhancement board; KAM .....	119.95	
Package 2 Upgrade; KAM enhance board D	39.95	34 <sup>95</sup>
Package 3 Upgrade; KAM Plus .....	59.95	
Pacterm 98 CSS Software; Kan TNCs .....	79.95	
Superfax II WX FAX program for IBM .....	59.95	
APRS adapter cable; GPS to Kantronics TNC .....	32.95	
G-TOR Book .....	Δ 16.95	14 <sup>95</sup>
K-1 1w 2m transmitter kit .....	D 89.95	79 <sup>95</sup>
Pager Handbook for the Radio Amateur .....	Δ 16.95	14 <sup>95</sup>

## KENWOOD (KEN)

TS-950SDX Dlx Xcwr w/keyer/DSP/filters .....	5299.95	3999 <sup>95</sup>
DRU-2 Digital recording unit .....	149.95	139 <sup>95</sup>
IF-232C Level translator .....	D 129.95	99 <sup>95</sup>
MC-43S Extra 8-pin hand mic w/up-down .....	59.95	
MC-60A 8-pin amp desk mic w/up-down .....	159.95	149 <sup>95</sup>
MC-80 8-pin electret desk mic w/up-down .....	119.95	109 <sup>95</sup>
MC-90 2-head DSP desk microphone .....	269.95	239 <sup>95</sup>
SP-950 External spkr w/audio filters .....	159.95	149 <sup>95</sup>
VS-2 Voice synthesizer .....	69.95	
YG-455CN-1 250 Hz CW filter (2nd IF) .....	D 179.95	99 <sup>95</sup>
YK-88CN-1 270 Hz CW filter (1st IF) .....	139.95	129 <sup>95</sup>
YK-88SN-1 1.8 KHz SSB filter (1st IF) .....	139.95	129 <sup>95</sup>
TS-870S 9-band Xcwr/Rcvr/IFDSP/tuner .....	3199.95	2299 <sup>95</sup>
PS-40 Switching power supply .....	229.95	199 <sup>95</sup>
PS-52 Heavy duty power supply .....	309.95	269 <sup>95</sup>
DRU-3A Dig recording unit; TS-870/570 .....	139.95	129 <sup>95</sup>
MC-43S Extra 8-pin hand mic w/up-down .....	59.95	
MC-60A 8-pin amp desk mic w/up-down .....	159.95	149 <sup>95</sup>
MC-80 8-pin electret desk mic w/up-down .....	119.95	109 <sup>95</sup>
MC-90 2-head DSP desk microphone .....	269.95	239 <sup>95</sup>
SO-2 TCXO unit .....	189.95	179 <sup>95</sup>
SP-31 External speaker .....	99.95	
VS-2 Voice synthesizer .....	69.95	
TS-570D(G) 9-band Xcwr/Rcvr/AFDSP/tuner/mic .....	1749.95	1099 <sup>95</sup>
TS-570S(G) 9-band Xcwr/Rcvr/AFDSP/tuner/mic .....	2069.95	1389 <sup>95</sup>
PS-40 Switching power supply .....	229.95	199 <sup>95</sup>
PS-53 Heavy duty 22.5A power supply .....	289.95	249 <sup>95</sup>
DRU-3A Dig recording unit; TS-570/870 .....	139.95	129 <sup>95</sup>
KSS Sky command system; 570/870 .....	special order	1177.85 899 <sup>95</sup>
MB-430 Mobile mounting bracket .....	49.95	
MC-43S 8-pin hand mic w/up-down .....	59.95	
MC-60A 8-pin amp desk mic w/up-down .....	159.95	149 <sup>95</sup>
MC-80 8-pin electret desk mic w/up-down .....	119.95	109 <sup>95</sup>
MC-90 2-head DSP desk microphone .....	269.95	239 <sup>95</sup>
PG-22 Heavy duty DC cable .....	37.95	
SO-2 TCXO unit .....	189.95	179 <sup>95</sup>
SP-23 External speaker .....	89.95	
VS-3 Voice synthesizer .....	39.95	
YK-88C-1 500 Hz CW filter .....	139.95	129 <sup>95</sup>
YK-88CN-1 270 Hz CW filter .....	139.95	129 <sup>95</sup>
YK-88SN-1 1.8 KHz SSB filter .....	139.95	129 <sup>95</sup>
TS-50S Compact HF Xcwr/SW Rcvr/mic/mt .....	1169.95	799 <sup>95</sup>
TS-60S Compact 6m Xcwr/mic/mt .....	1199.95	999 <sup>95</sup>
PS-40 Switching power supply .....	229.95	199 <sup>95</sup>
PS-53 Heavy duty 22.5A power supply .....	289.95	249 <sup>95</sup>
AT-50 External HF auto tuner .....	379.95	329 <sup>95</sup>
PG-4M 18' extension cable for AT-50 .....	29.95	

## KENWOOD - continued

Reg Sale

IF-100 Computer interface .....	89.95	
IF-232C Level translator .....	D 129.95	99 <sup>95</sup>
MB-13 Deluxe quick release mobile mt .....	55.95	29 <sup>95</sup>
MC-47 Extra multi-func 8-pin hand mic .....	59.95	
MC-60A 8-pin amp desk mic w/up-down .....	159.95	149 <sup>95</sup>
MC-80 8-pin electret desk mic w/up-down .....	119.95	109 <sup>95</sup>
PG-2Y DC cable .....	39.95	
SO-2 TCXO unit .....	189.95	179 <sup>95</sup>
SP-23 External speaker .....	89.95	
TC-50/50Case Travel case for TS-50S/60S	89.95	
YK-107C 500 Hz CW filter .....	139.95	129 <sup>95</sup>
7-pin DIN plug .....	4.95	
8-pin DIN plug .....	6.95	
13-pin DIN plug .....	9.95	
DFK-7A Dlx 22' rem cbl kit; 255A/455A .....	99.95	74 <sup>95</sup>
E30-1765-D8 Adapt cord; MC-85 - 8-pin Xcwr	21.95	
HS-5 Deluxe headphones .....	79.95	
HS-6 Lightweight headphones .....	59.95	
LF-30A 1kw PEP low pass filter .....	64.95	
MA-5 5-band 200W PEP HF mob ant .....	D 189.95	139 <sup>95</sup>
VP-1 Hvy duty chrome spg, bumper mt .....	D 64.95	19 <sup>95</sup>
MC-43S 8-pin hand mic w/up-down switch .....	59.95	
MC-60A 8-pin amp desk mic w/up-down .....	159.95	149 <sup>95</sup>
MC-80 8-pin electret desk mic w/up-down .....	119.95	109 <sup>95</sup>
PG-3B 15A DC line noise filter .....	29.95	
PG-3G 25A DC line noise filter .....	51.95	
SP-50B High quality external mobile speaker	55.95	
TSU-5 Prog CTCSS decoder; TS-790A .....	Δ 64.95	
TU-7 Prog encoder; 2550/751A/TW-4100A .....	Δ 54.95	
TU-8 CTCSS tone unit; TS-450S/690S .....	Δ 54.95	
UT-10 10w 1.2 GHz module; TS-790A .....	Δ 629.95	549 <sup>95</sup>
YG-455C-1 500 Hz CW filter; TS-450/690 .....	Δ 169.95	149 <sup>95</sup>
YK-88A-1 AM filter; R-5000 .....	D 104.95	99 <sup>95</sup>
YK-88CN 270 Hz CW filter; R-5000 .....	D 104.95	69 <sup>95</sup>
YK-88S-1 2.4 KHz SSB filter; TS-450/690 .....	D 139.95	99 <sup>95</sup>
YK-88SN 1.8 KHz SSB filter; R-5000 .....	Δ 139.95	129 <sup>95</sup>
YK-455C-1 500 Hz CW filter; TS-140S .....	D 114.95	99 <sup>95</sup>
TM-642AD 2m/220 FM Xcwr/backlit TTP mic	989.95	739 <sup>95</sup>
TM-742AD 50/35w 2m/440FM/backlit TT mic	959.95	649 <sup>95</sup>
MFJ 916 duplexer FREE with TM-742AD! Limited Time!		
DFK-3 9' separate display cable kit .....	26.95	
DFK-4 13' remote cable kit .....	59.95	
DFK-7 Deluxe 22' remote cable kit .....	89.95	
MB-14 Quick release mobile mount .....	D 49.95	29 <sup>95</sup>
MJ-88 Modular to 8-pin mic adapter .....	30.95	
MJ-89 Modular mic switch .....	69.95	
TSU-7 CTCSS decoder unit .....	59.95	
UT-50S 50w 6m unit .....	379.95	329 <sup>95</sup>
UT-220S 25w 220 MHz unit .....	379.95	329 <sup>95</sup>
UT-440S 35w 440 MHz unit .....	339.95	299 <sup>95</sup>
UT-1200 10w 1.2 GHz unit .....	459.95	399 <sup>95</sup>
DFK-3B 9' sep disp cable kit; TM-733A .....	D 39.95	29 <sup>95</sup>
DFK-4B 13' rem cable kit; TM-733A .....	D 60.95	39 <sup>95</sup>
DFK-7B Dlx 22' rem cbl kit; TM-733A .....	D 99.95	59 <sup>95</sup>
TM-G70A 50w 2m/35w 440 FM/TTP mic .....	519.95	339 <sup>95</sup>
TM-V7A 50w 2m/35w 440 FM Xcwr/TTP mic	719.95	459 <sup>95</sup>
DFK-3C 9' separate display cable kit .....	44.95	
DFK-4C 13' remote cable kit .....	64.95	
DFK-7C Deluxe 23' remote cable kit .....	99.95	
MJ-88 Modular to 8-pin mic adapter .....	30.95	
MJ-89 Modular mic switch .....	69.95	
PG-4S PC interface cable .....	32.95	
PG-5A Packet data cable .....	15.95	
VS-3 Voice synthesizer .....	39.95	
MA-700 3db 2m/5.5db 440 ant w/duplexer D	109.95	99 <sup>95</sup>
Larsen PO-K Roof mt, coax; MA-700 .....	25.95	
Larsen PO-MM Magnet mt, coax; MA-700 .....	31.95	
Larsen PO-TLM Trunk lip mt, coax; MA-700	27.95	
TM-331A 25w 220 FM Xcwr w/TTP mic .....	579.95	499 <sup>95</sup>
KQT-8/TSU-6 Prog CTCSS decoder .....	49.95	
MC-44DM Extra multi-function TTP mic .....	79.95	
TM-541A 10w 1.2 GHz FM Xcwr/TTP/encoder	579.95	449 <sup>95</sup>
DTU-2 Digital paging unit .....	D 32.95	19 <sup>95</sup>

## KENWOOD - continued

Reg Sale

KQT-8/TSU-6 Prog CTCSS decoder .....	49.95	
TM-261A 50w 2m FM Xcwr w/TTP mic .....	379.95	189 <sup>95</sup>
TM-461A 35w 440 FM Xcwr w/TTP mic .....	509.95	439 <sup>95</sup>
TSU-8 CTCSS decoder .....	59.95	
MC-45DM Extra multi-function TTP mic .....	79.95	
MC-52DM Back-lit TTP mic; 241/331/441/541 .....	79.95	
MC-53DM Back-lit TTP mic; 251/733/742/255A/7A	79.95	
Accessories for TH-75A/77A/25AT/26AT		
BT-6 6-AA battery case .....	D \$ 29.95	19 <sup>95</sup>
PG-3E Cig cord w/filter for DC-1 .....	D 35.95	19 <sup>95</sup>
Accessories for TH-28A/48A/78A		
BC-15A Rapid cgr; PB-13/14/17/18 .....	D \$119.95	29 <sup>95</sup>
ME-1 Memory expansion; also for TM-251A D	39.95	9 <sup>95</sup>
SC-33 Soft case; TH-28A/48A/PB-13/BT-8 .....	D 24.95	9 <sup>95</sup>
SC-34 Soft case; TH-28A/48A/PB-17/18 .....	D 24.95	19 <sup>95</sup>
SC-35 Regular soft case; TH-78A .....	D 24.95	99 <sup>95</sup>
SC-36 Large soft case; TH-78A .....	D 24.95	99 <sup>95</sup>
TH-22ATH 5w 2m FM HT/batt/KSC-8A/TTP .....	324.95	229 <sup>95</sup>
TH-42AT 2.5w 440 FM HT/batt/cgr/TTP .....	Δ 399.95	289 <sup>95</sup>
TH-79AKSS 5w 2m/440 HT/batt/cgr/TTP .....	579.95	379 <sup>95</sup>
BH-6 Swivel mount .....	39.95	
BT-9 4-AA battery holder .....	29.95	
EMC-3 Lapel clip mic/ear piece .....	29.95	
HMC-3 VOX/boom mic headset .....	59.95	
KSC-8A Drop-in cgr; 25/26/75/77/22/42/79	26.95	
KSC-14 2-pack rapid charger .....	87.95	
PB-32 600ma 6v battery .....	Δ 66.95	19 <sup>95</sup>
PB-33 1200ma 6v battery .....	89.95	
PB-34 600ma 9.6v (5w) battery .....	89.95	
PG-2W DC cable w/fuse .....	17.95	
PG-3J Cig lighter cord w/filter .....	36.95	
PG-4R SkyCommand II cbl; 79AKSS/570/870	79.95	
SC-37 Soft case; TH-22/42AT/PB-30/32 .....	D 24.95	19 <sup>95</sup>
SC-41 Soft case; TH-79A(D) w/PB-32 .....	D 24.95	9 <sup>95</sup>
SC-43 Soft case; TH-79A(D) w/PB-33/34 D	24.95	9 <sup>95</sup>
SMC-32 Mini water resist rt angle spkr/mic .....	52.95	
SMC-33 Speaker/mic w/remote control .....	65.95	
SMC-34 Spkr/mic w/vol cont/function keys	39.95	
TSU-8 CTCSS decoder; TH-22/42AT .....	59.95	
WR-2 Water resistant bag; TH-22/42AT .....	29.95	
TH-G71A 5w 2m/440 FM HT/batt/cgr/TTP .....	429.95	279 <sup>95</sup>
TH-D7A 5w 2m/440 FM HT/1200/9600 TNC .....	519.95	449 <sup>95</sup>
BC-19 Rapid charger .....	64.95	
BT-11 4-AA battery holder .....	17.95	
EMC-3 Lapel clip mic/ear piece .....	29.95	
HMC-3 VOX/boom mic headset .....	59.95	
J29-0631-13 Belt clip for batt; D7A/G71A .....	4.95	
PB-38 650ma 6v battery .....	44.95	
PB-39 600ma 9.6v (5w) battery .....	57.95	
PG-2W DC cable w/fuse .....	17.95	
PG-3J Cig lighter cord w/filter .....	36.95	
PG-4P Computer control cable; TH-G71A .....	32.95	
PG-4R SkyCommand II cable; D7A/570/870	79.95	
PG-4V VC-H1 connection cable TH-D7A .....	49.95	
PG-4W PC connection cable; TH-D7A .....	55.95	
SC-45 Soft case for TH-G71A/PB-38/39 .....	15.95	
SC-47B Black soft case for TH-D7A .....	15.95	
SC-47OR Orange soft case for TH-D7A .....	15.95	
SMC-32 Mini water resist rt angle spkr/mic .....	52.95	
SMC-33 Speaker/mic w/remote control .....	65.95	
SMC-34 Spkr/mic w/vol cont/function keys	39.95	
VC-IS Software w/cable for VC-H1 to PC .....	40.95	
WR-2 Water resistant bag; TH-G71A .....	29.95	
BT-10 6 AA alk batt case; TH-235A .....	D 13.95	6 <sup>95</sup>
PB-36 7.2v 950ma nicad batt; TH-235A .....	D 49.95	19 <sup>95</sup>
PB-37 12v 950ma (5w) nicad; TH-235A .....	D 57.95	19 <sup>95</sup>
EZ-PASS WIN 95 No-code tech study package	34.95	
Primer Welcome to Amateur Radio primer .....	2.00	50 <sup>95</sup>
VC-H1 Visual Communicator SSTV unit .....	584.95	429 <sup>95</sup>
E30-3352-08 16-pin DIN/unterminated cbl	44.95	
E59-0407-08 16-pin DIN plug only .....	29.95	
KCT-24S Software w/cable .....	58.95	
PG-4T VC-H1 to Kenwood FM mobile cable	49.95	



## KENWOOD - continued

	Reg	Sale
SC-46P Protective case .....	18.95	
VC-IS Software w/cable for VC-H1 to PC ...	40.95	
<b>CONSUMER ELECTRONICS</b>		
TKM-707 150w HF marine SSB Xcvr spec order	2249.95	1249 <sup>95</sup>
KAT-1 HF marine auto ant tuner ...spec order	999.95	569 <sup>95</sup>
UBZ-LF14 Family radio svc black handheld ...	149.95	119 <sup>95</sup>
EMC-3 Label clip mic/ear piece .....	29.95	
HMC-3 VOX/boom mic headset .....	59.95	
SMC-34 Spkr/mic/vol cont/function keys ...	39.95	
UBC-3 Nicad desk charger .....	36.95	
UPB-2 Nicad battery pack .....	24.95	
USC-4B Black nylon case .....	15.95	

## KOSS (KOS)

GT/3 Stereophone w/covered headband .....D	\$ 14.99	9 <sup>95</sup>
GT/4 Stereophone w/volume control .....D	19.99	14 <sup>95</sup>
HD/30 Dual amplified stereo speakers .....D	29.99	24 <sup>95</sup>
HD/33 Computer stereophone/vol control .....Δ	14.99	9 <sup>95</sup>
HP/6 Port stereophone w/vol/adj headband .....	9.99	
KTX/2 Portable stereophone w/adj headband .....	9.99	
KTX/4 Collapsible stereophone w/vol control .....	14.99	
QZ/99 Noise reduction stereoph w/mono sw .....	59.99	
QZ/2000 Active noise reduction stereophone .....	199.99	179 <sup>95</sup>
SB/30 Communications headset w/mic .....	49.99	
SP/5 Sidelining yellow stereophone .....	7.99	
SW/5 Single communications headset .....	14.99	

## LARSEN (LAR)

<b>27-31 MHz ANTENNA</b>		
NMO-27C 10m ant only (no mount) .....	\$ 33.95	
<b>47-54 MHz ANTENNA</b>		
NMO-50B 6m black ant only (no mount) .....	\$ 36.95	
NMO-50C 6m ant only (no mount) .....	33.95	
<b>144-174 MHz ANTENNAS</b>		
NMO-150B 2m black ant only (no mt), 3 db ..	\$ 33.95	
NMO-150C 2m ant only (no mount), 3 db .....	30.95	
<b>220-265 MHz ANTENNAS</b>		
NMO-220B 220 black ant only (no mt), 3 db ..	\$ 36.95	
NMO-220C 220 ant only (no mount), 3 db ....	30.95	
<b>440-460 MHz ANTENNAS</b>		
NMO-440B 440 black ant only (no mt), 5 db ..	\$ 35.95	
NMO-440C 440 ant only (no mount), 5 db ....	29.95	
OM-440-K 440 no ground plane ant, 2 db ..D	52.15	12 <sup>95</sup>
MM-2/70 2m/440 ¼ wave/2db mag mt ant ..	44.95	
NMO-2/70B 2m/440 blk ant only (no mt), 2/4db ...	58.95	
NMO-2/70C 2m/440 ant (no mount), 2/4db ...	53.95	
NMO-2/70-SH 2m/440 ant (no mt), ¼ ww/2db ..	35.95	
NMO-012 135-160/148-173 2.5db (no mt) .....	50.95	24 <sup>95</sup>
NMOQ-Spec 136-512 MHz ¼ wave ant (no mt) ..	11.95	
NMOQ-Spec-B 136-512 black ¼ ww ant (no mt) ..	14.95	
NMOQ-Spec-K 136-512MHz ¼ ww ¾" hole ant ..	24.95	
NMOQ-2/70-B 2m/440 ¼ ww cell look ant (no mt) ..	32.95	
NMO-1290B 1.2 GHz black ant only (no mt) D	32.95	29 <sup>95</sup>
FB1-136 Base station 136-230 MHz ant ....D	137.80	99 <sup>95</sup>
<b>ON GLASS ANTENNAS</b>		
KG-144-UD-PL 2m 3 db on glass antenna ...	\$ 73.95	
KG-220-UD-PL 220 3 db on glass antenna ..	74.95	
KG-440-UD-PL 440 2.4 db on glass antenna ..	61.95	
KG-2/70-CX-PL 2m/440 2.5/4.5db on glass ..	99.95	
KG-Reinstall Reinstall kit for KG-ants .....	5.95	

## KULDUCKIES - For Hand-helds

KD4-146 2m BNC Kulduckie .....	\$ 18.95	
KD4-2/70 2m/440 BNC Kulduckie .....	29.95	
KD4-222 220 BNC Kulduckie .....	18.95	
KD14-445 440 ¼ wave BNC Kulduckie .....	18.95	
KD4-146-HQ 2m part helical, part ¼ wave BNC ..	23.95	
KD14-2M-HW 2m ¼ wave BNC antenna .....	35.95	
KD14-440-HW 440 ¼ wave BNC antenna .....	35.95	

## ACCESSORIES & REPLACEMENT PARTS

A-7 Adapter for NMO antenna on NLA mount	\$ 8.95	
AD-2/70 100w 2m/440 duplexer .....	108.35	79 <sup>95</sup>

## LARSEN - continued

	Reg	Sale
BSA-K Base mounting kit for mobile ant .....	49.95	
NMO-CAP-B Black rain cap for NMO mount ..	4.95	
NMO-K ¾" hole mt w/coax for NMO ant .....	13.95	
NMO-MM Magnet mt, coax for NMO ant .....	30.95	
NMO-TLP Low profile tnk lid mt, coax; NMO ant	27.95	
PO-K Roof mt, coax for SO-239 ant .....	26.95	
PO-MM Magnet mt, coax for SO-239 ant .....	33.95	
PO-TLM Trunk lip mt, coax for SO-239 ant ..D	27.95	
RG-SS Extra super seal NMO gaskets (3) .....	3.95	
SPRING Shock spring .....	8.95	
TMB-34 Trunk mtg bkt for NMO antenna .....	4.95	
TMB-34B Black trunk mtg bkt for NMO ant ..	7.95	
W-2/70B 2m/440 black replacement whip ...	24.95	
W-490 49" replacement whip .....	9.95	
W-490B Black 49" replacement whip .....	12.95	

## LOGSAT (LOG)

Logsat Professional Satellite tracking CDROM	\$ 69.95	
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## M<sup>2</sup> (MSQ)

20M-4DX 20m 7.4db 4el 34'8" boom beam ..	\$529.95	
17M-3DX 17m 6.4db 3el 19'2" boom beam ..	399.95	
15M-4DX 15m 7.6db 4el 27' boom beam .....	449.95	
12M-4DX 12m 8.6db 4el 27' boom beam .....	399.95	
10M-4DX 10m 8db 4el 24' boom beam .....	399.95	
6M-5 6m 50-50.5 9.4db 5el 15'10"bm beam ..	199.95	
6M-7JHV 6m 50-50.4 10.9db 7el 30'8"bm beam	249.95	
6M-HO-LOOP 6m horizontal loop antenna ....	89.95	
2M-4 2m 7.5db 4el 4' boom beam .....	89.95	
2M-7 2m 10.3db 7el 8'10" boom beam .....	109.95	
2M-9FM 2m 146-148 12db 9el 14.5' bm beam ..	119.95	
2M-9SSB 2m 144-146 12db 9el 14.5' bm beam ..	119.95	
2M-12 2m 12.8db 12el 19'6" boom beam .....	159.95	
2M-5WL 2m 14.8db 17el 33' boom beam .....	199.95	
2M-18XXX 2m 15.3db 18el 36'3" boom beam ..	229.95	
2M-CP14 2m 10.3db 7h/7v 10.5'bm circ beam ..	169.95	
2M-CP22 2m 12.5db 11h/11v 18.5'bm circ beam ..	229.95	
FG X-Boom Kit For circular antennas, etc. ....	119.95	
2M-HO-LOOP 2m horizontal loop antenna ....	39.95	
Big-Foot 4x-mag mt; 2M-HO-LOOP stack/etc ..	99.95	
MAG-KIT Magnet mt kit; single 2m-HO-LOOP ..	20.95	
STACK-KIT Stack kit for 2m-HO-LOOP's .....	61.95	
EB-144 2m Eggbeater 4db omn/hor/rhc overhead	129.95	
RK-2M 2m 6db overhead reflector kit/base mt ..	37.95	
222-10EZ 220 12db 10el 9.75' boom beam ..	99.95	
222-5WL 220 15.2db 15el 23'3" boom beam ..	159.95	
420-50-11 432 11.3db 11el 5'bm rear mt beam ..	89.95	
440-18 432 14.5db 18el 11'4" boom beam ..	119.95	
440-21ATV 432 15.9db 21el 14.5' bm ATV beam ..	139.95	
432-9WL 432 17.3db 28el 21' boom beam ....	169.95	
432-13WLA 432 18.6db 38el 30'8" bm beam ..	229.95	
432-HO-LOOP 2m horizontal loop antenna ....	39.95	
Big-Foot 4x-mag mt; 432-HO-LOOP stack/etc ..	99.95	
MAG-KIT Mag mt kit; single 432-HO-LOOP ....	20.95	
STACK-KIT-70CM Stack kit; 2 432-HO-LOOP's ..	61.95	
436-CP30 432 14.5db 15h/15v 9'bm circ beam ..	229.95	
436-CP42UG 432 16.8db 21h/21v 18'10"bm circ	269.95	
FG X-Boom Kit For circular antennas, etc. ....	129.95	
EB-432 432 Eggbeater 4db omn/hor/rhc overhead	119.95	
RK-70CM 432 6db overhead reflector kit/base mt ..	37.95	
23CM-22EZ 1.2GHz 16db 22el 5'2" bm beam ..	89.95	
23CM-35 1.2GHz 18.4db 35el 10' bm beam ..	149.95	
2M-2-Port-PD 2m 2-port type N power divider ..	59.95	
70CM-2-Port-PD 432 2-port N power divider ..	59.95	
23CM-2-Port-PD 1.2GHz 2-port N power divider ..	59.95	
OR-2800PDC 35 sq ft azimuth rotor w/control box	1429.95	

## MBR INDUSTRIES (MBR)

GN-15150 Rechargeable AM/FM radio/lights/fan	\$99.95	
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## MFJ ANTENNA TUNERS (MFJ)

989C Dlx 3kw PEP w/roller inductor .....	\$359.95	319 <sup>95</sup>
986 3kw PEP w/roller inductor .....	329.95	299 <sup>95</sup>
962D 1.5kw PEP/meter/switch/balun/roller ind	269.95	249 <sup>95</sup>
969 HF & 6m 300w roller inductor tuner .....	189.95	179 <sup>95</sup>

## MFJ - continued

	Reg	Sale
949E 300w/meter/dummy/sw/balun .....	149.95	139 <sup>95</sup>
1312C 12vdc 300ma ps 2.5mm coaxial; 949E	12.95	
948 300w/meter/switch/balun .....	129.95	119 <sup>95</sup>
941E 300w tuner w/meter, switch, balun .....	119.95	109 <sup>95</sup>
945E 300w tuner w/meter plus 6m .....	109.95	99 <sup>95</sup>
20 Mobile bracket for 945E .....	4.95	
901B Versa Tuner 200w ant tuner .....	79.95	
910 80-10m mobile antenna matcher .....	19.95	
16010 200w random wire tuner .....	49.95	
903 6m antenna tuner .....	49.95	
906 6m antenna tuner w/wattmeter .....	79.95	
914 Auto tuner extender .....	59.95	
921 2m/220 300w PEP tuner/SWR/wattmeter .....	69.95	
922 2m/440 150w tuner/SWR/wattmeter .....	79.95	
924 440 MHz 300w PEP tuner/SWR/wattmeter .....	69.95	
934 300w tuner w/artificial ground .....	169.95	159 <sup>95</sup>
940A 10m antenna tuner/SWR/wattmeter .....	79.95	
<b>MEMORY KEYS</b>		
451 Dedicated CW keyboard w/memory .....	\$ 99.95	89 <sup>95</sup>
451X Morse keyboard interface only .....	79.95	
452 CW keyboard/keyer w/disp/keyboard .....	129.95	119 <sup>95</sup>
452X CW keyboard/keyer w/disp, no keyboard ..	99.95	89 <sup>95</sup>
498 Dlx CW keyboard/keyer w/disp/keyboard ..	179.95	169 <sup>95</sup>
498X Dlx CW keyboard w/disp, no keyboard ..	159.95	149 <sup>95</sup>
490 492 keyer/Benchner paddle combination ..	184.95	174 <sup>95</sup>
490X 492 keyer for use w/Benchner or 564 .....	109.95	99 <sup>95</sup>
564 Deluxe iambic paddle for 490X .....	49.95	
492 192 char menu driven memory keyer .....	99.95	89 <sup>95</sup>
80 8000 char memory expansion for 492 .....	14.95	
492X Memory keyer w/8000 char expansion ..	114.95	104 <sup>95</sup>
78 Remote control for 492/492X .....	19.95	
493 32K char menu driven mem keyer .....	139.95	129 <sup>95</sup>
79 Remote control for 493 .....	19.95	
551 IBM AT-101 keyboard for 493 .....	39.95	
5409 9-pin serial port 6' cable for 493 .....	12.95	
5425 25-pin serial port 6' cable for 493 ...	12.95	

## ELECTRONIC KEYS

407D Deluxe electronic keyer .....	\$ 69.95	
401D Econo keyer .....	49.95	

## KEYER/PADDLES

422D Keyer/Benchner paddle combination .....	\$154.95	144 <sup>95</sup>
422DX Keyer only .....	79.95	
441 SlimLine econo keyer .....	59.95	
442 SlimLine keyer/Benchner paddle combo ...	159.95	149 <sup>95</sup>
442X SlimLine keyer only .....	89.95	
447 SlimLine deluxe keyer .....	79.95	
564 Deluxe iambic chrome paddle .....	49.95	
564B Deluxe iambic black paddle .....	49.95	

## COMPUTER INTERFACES

1224 Interface .....	\$109.95	99 <sup>95</sup>
1265 Disk software for VIC/C64; 1224 .....	19.95	
1285 Software for IBM; 1224 .....	19.95	
1225 Receive only interface .....	69.95	49 <sup>95</sup>
1264B Tape software; VIC/C64; 1225 .....	19.95	99 <sup>95</sup>
1265B Disk software; VIC/C64; 1225 .....	19.95	99 <sup>95</sup>
1270C Packet radio TNC2 .....	119.95	109 <sup>95</sup>
47A Mailbox 32K mem; 1270/1274 .....	49.95	24 <sup>95</sup>
47B Mailbox 128K mem; 1270/1274 .....	69.95	44 <sup>95</sup>
47C Mailbox 512K mem; 1270/1274 .....	149.95	89 <sup>95</sup>
2400 2400 baud modem .....	29.95	
9600B 9600 baud modem .....	109.95	99 <sup>95</sup>
1270CT Turbo packet w/2400 baud .....	149.95	139 <sup>95</sup>
1270CQ Packet w/9600 baud modem .....	239.95	219 <sup>95</sup>
1276 Packet/Pactor controller .....	149.95	139 <sup>95</sup>
1276T Packet/Pactor Turbo controller .....	179.95	169 <sup>95</sup>
1278B Multi-mode controller w/Pactor .....	299.95	269 <sup>95</sup>
1278B/DSP Controller w/Pactor & DSP .....	379.95	349 <sup>95</sup>
45A 32K RAM IC only .....	14.95	6 <sup>95</sup>
48 1278 upgrade .....	24.95	
48B 1278B upgrade .....	24.95	
48E 1278 packet encryption EPROM .....	29.95	19 <sup>95</sup>
52 TNC2 deviation meter board .....	29.95	



# PRICE GUIDE

## MFJ - continued

	Reg	Sale
56A Pactor/mailbox 32K board for 1278B ..	69.95	
56B Pactor/mailbox 128K board for 1278B ..	89.95	
56C Pactor/mailbox 512K board; 1278B ....	149.95	139 <sup>95</sup>
780 DSP data filter for 1278B .....	99.95	89 <sup>95</sup>
2400 2400 baud modem .....	29.95	
9600B 9600 baud modem .....	109.95	99 <sup>95</sup>
1278BT Turbo controller/2400/Pactor .....	329.95	299 <sup>95</sup>
1282 C64 starter pack .....	24.95	
1282B Multicom package; C64/128 .....	39.95	
1282BD Multicom 64 disk only .....	29.95	9 <sup>95</sup>
1284 5 1/4" IBM starter pack .....	24.95	
1284D 1284 disk only .....	14.95	
1284M 3 1/2" IBM starter pack .....	24.95	
1284MD 1284M disk only .....	14.95	
1284W MFJCOM for Windows .....	29.95	
1284WD 1284W disk only .....	19.95	9 <sup>95</sup>
1287 Macintosh starter pack .....	24.95	19 <sup>95</sup>
1287B Mac multicom starter pack .....	49.95	
1287D 1287 disk only .....	14.95	4 <sup>95</sup>
1287BD 1287B disk only .....	39.95	14 <sup>95</sup>
1288 Packet terminal program .....	9.95	
1289 5 1/4" multicom software for IBM .....	59.95	39 <sup>95</sup>
1289D 1289 disks only .....	49.95	24 <sup>95</sup>
1289M 3 1/2" multicom software for IBM .....	59.95	
1289MD 1289M disks only .....	49.95	
1289W Multicom for Windows with cable ..	59.95	
1289WD Multicom for Windows, less cable ..	49.95	
1293 JVFax/HamCom soft/FJ-1213 .....	9.95	4 <sup>95</sup>
1214PC Multimode interface for IBM .....	149.95	139 <sup>95</sup>
59M 1214PC 3 1/2" software upgrade .....	29.95	24 <sup>95</sup>
40B TNC2 upgrade 32K/RAM .....	29.95	9 <sup>95</sup>
40C TNC2 upgrade 32K .....	19.95	
40E TNC2 packet encryption EPROM .....	29.95	9 <sup>95</sup>
43 Real time clock for TNC .....	19.95	
44 Plug-in scope tuning adapter .....	19.95	
52B FM deviation/temp/volt meter for TNC ..	39.95	
781 DSP filter for any TNC or controller .....	129.95	119 <sup>95</sup>
1271 Packet card for C64/128 .....	49.95	39 <sup>95</sup>
1272B TNC to microphone interface .....	39.95	
1272BYH TNC/mic switch; KAM HF .....	39.95	
1272BYV TNC/mic switch; KAM VHF .....	39.95	
1272BZ TNC/mic switch; PK-88 .....	39.95	19 <sup>95</sup>
1272M TNC/mic RJ-45 switch; MFJ/PK-900 ..	39.95	
1272MX TNC/mic RJ-45 switch; PK-232 .....	39.95	
1272MYH TNC/mic RJ-45 switch; KAM HF .....	39.95	
1272MYV TNC/mic RJ-45 sw; KAM VHF; KPC3 ..	39.95	
1272MZ TNC/mic RJ45 switch; PK88 .....	39.95	19 <sup>95</sup>
1273 Packet tuning indicator .....	49.95	4 <sup>95</sup>

## SSB/CW FILTERS

722 SSB/CW notch filter .....	\$ 79.95	
751B Super tunable CW audio filter .....	69.95	
752C Dual tunable SSB/CW filter .....	99.95	89 <sup>95</sup>
784B Deluxe tuneable DSP filter .....	249.95	229 <sup>95</sup>
5184 Cable pack for 784B .....	7.95	

## PHONE PATCH

624D Phone patch w/audio VU meter .....	\$129.95	119 <sup>95</sup>
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## DUMMY LOADS

250 2kw PEP dummy load w/oil .....	\$ 49.95	
250X 2kw PEP dummy load, less oil .....	29.95	
21 1 gal industrial xfmr oil for wet dummy ..	19.95	
260C 300w 0-650 MHz dry dummy load .....	29.95	
260CN 300w 0-650 MHz type N dry dummy ..	34.95	
264 1.5kw 0-650 MHz dry dummy load .....	59.95	
264N 1.5kw 0-650 MHz type N dry dummy ..	69.95	

## SWR/WATTMETERS

812B 144-220 MHz SWR/FS/wattmeter .....	\$ 34.95	
815B 160-6m cross-needle SWR/wattmeter ..	69.95	
816 1.8-30 MHz toroidal SWR/wattmeter .....	34.95	
817 2m/440 cross needle meter .....	79.95	
840 2m 5w wattmeter/dummy load for HT ....	19.95	
841 2m 5w in-line HT wattmeter/SWR .....	39.95	
844 Compact 2m/440 SWR/wattmeter .....	69.95	
860 1.8-60 MHz cross-needle meter .....	44.95	

## MFJ - continued

	Reg	Sale
862 2m/220/440 cross-needle meter .....	54.95	
864 1.8-60MHz/2m/440 cross needle meter ..	84.95	
870 1.6-60MHz Grandmaster SWR/wattmeter ..	134.95	124 <sup>95</sup>
872 1.8-200MHz Grandmaster SWR/wattmeter ..	94.95	
873 125-525MHz Grandmaster SWR/wattmeter ..	114.95	104 <sup>95</sup>
874 1.8-525MHz Grandmaster SWR/wattmeter ..	169.95	159 <sup>95</sup>

## SHORTWAVE ACCESSORIES

306 Car radio SWL converter .....	\$ 79.95	
956 LW/MW/SW preselector/tuner .....	39.95	
959B Receiver ant tuner w/preamp .....	99.95	
1020B .3-30 MHz indoor active rcv ant .....	69.95	
1022 300KHz-200MHz active rcv antenna ....	39.95	
1024 .05-30 MHz outdoor active rcv ant .....	129.95	119 <sup>95</sup>
1040B Deluxe receiver preselector .....	99.95	
1045C Receiver preselector .....	69.95	

## BOOKS

30 Golden Classics book .....	\$ 9.95	
31 Oscar book .....	7.95	
32 Packet Made Easy book .....	9.95	
33 Mobile Handbook book .....	12.95	
35 World of Ham Radio book .....	7.95	
36 Shortwave Listeners Guide; Apts/Condos ..	9.95	
37 Ham Communications Circuit Files book ..	9.95	
38 Easy-up Antennas book .....	16.95	
3036 The Packet Radio Operators book .....	12.95	
3101 Fox Hunt Adventure book .....	7.95	
3210 Novice license guide .....	7.95	
3211 Tech Plus license guide .....	7.95	
3212 No code tech license guide .....	14.95	
3213 General license guide .....	7.95	
3214 Advanced license guide .....	7.95	
3215 Extra license guide .....	7.95	
3301 Troubleshooting Antenna & Feedlines book	12.95	
3302 73 Dipole and Long-Wire Antennas ....	12.95	
3303 73 Vertical, Beam, and Triangle Ants ...	12.95	
3305 Antennas & Transmission Lines book ...	19.95	
3400 Morse Code: Breaking the Barrier .....	14.95	
3502 Solid State QRP Projects .....	12.95	
3504 FET Principles, Experiments & Projects ..	16.95	
3506 Ferromagnetic-Core Design book .....	19.95	
3507 Practical RF Design Manual .....	19.95	
3508 Radio Components Handbook .....	29.95	
3509 Ladder Crystal Filters .....	14.95	

## CLOCKS

105C 24-hour quartz wall clock .....	\$ 19.95	
107B 24-hour digital clock .....	9.95	
108B 24/12-hour dual disp digital clock ....	19.95	
112 Deluxe world map clock .....	24.95	
114B Giant LED desk/wall 24-hour clock ....	59.95	
115 DX'er 24-hour analog world wall clock ..	24.95	
116 24/12-hour LED clock/10 minute timer ..	14.95	
116DC 12/24-hour 12vdc LED clock .....	19.95	
118 Giant 24/12 hour LCD clock .....	24.95	
119 Giant 24/12 hour LCD/in temp clock .....	49.95	
120 Monster atomic (WWV) clock/temp/humd ..	69.95	
125 Calendar 24-hour analog wall clock .....	29.95	
152 Thermo clock; in/out temp/24-hr clock ..	24.95	

## ANTENNAS

1402 2m/440 3/5.5db 16.5" 100w ant only ....	\$ 34.95	
1412 2m/440 3/5.5db 40" 200w ant only .....	49.95	
1422 2m/440 3.2/5.7db 41.5" 150w ant only ..	49.95	
1432 2m/440 5/7.6db 62.5" 150w ant only ..	69.95	
333BM 3.5" HiFlux NMO magnet mt .....	14.95	
333BS 3.5" HiFlux SO-239 magnet mt .....	14.95	
335BM 5" HiFlux NMO magnet mt .....	19.95	
335BS 5" HiFlux SO-239 magnet mt .....	19.95	
340 Mirror/luggage pipe clamp mount .....	34.95	
345 Trunk/hatchback lip mount .....	34.95	
1516 2m/440 15' vertical base antenna .....	104.95	94 <sup>95</sup>
1522 2m/440 5.5' vertical base antenna .....	89.95	
1524 2m/440 10' vertical base antenna .....	149.95	139 <sup>95</sup>
1526 2m/440 17' vertical base antenna .....	189.95	179 <sup>95</sup>
1526N 2m/440 17' N vertical base antenna ..	189.95	179 <sup>95</sup>

## MFJ - continued

	Reg	Sale
1532N 2m/440/1.2GHz 8.2' N vert base ant ..	129.95	119 <sup>95</sup>
1536 6m/2m/440 8.2' vertical base ant .....	154.95	144 <sup>95</sup>
1621 40-10m 54" portable ant w/tuner .....	79.95	
1710 2m 3/4 wave telescopic antenna .....	9.95	
1712 2m/440 telescopic antenna .....	14.95	
1713 2m/440 SuperFlex Thin Duk HT ant .....	19.95	
1713S 2m/440 SuperFlex SMA Thin Duk ant ..	19.95	
1714 2m 1/2 wave telescopic antenna .....	16.95	
1715 2m/440 SuperFlex gain Thin Duk HT ant ..	24.95	
1715S 2m/440 SuperFlex gain SMA Thin Duk ..	24.95	
1716 2m/440 duck for HT .....	16.95	
1716S 2m/440 SMA duck for HT .....	16.95	
1717 2m/2.15db 440 duck for HT .....	19.95	
1717S 2m/2.15db 440 SMA duck for HT .....	19.95	
1718 2m shorty duck for HT .....	12.95	
1719 2m/440/1.2GHz Midget Duck .....	19.95	
1719S 2m/440/1.2GHz SMA Midget Duck .....	19.95	
1721 2m HT UltraLite mag mt antenna .....	14.95	
1722 2m/440 HT UltraLite mag mt antenna ..	18.95	
1724B 2m/440 magnet mt antenna .....	14.95	
1728B 6m 1/4 ww/2m 1/4 ww mag ant/PL259/BNC	24.95	
1727 10m magnet mt antenna .....	39.95	
1729 2m/440 magnet mt antenna .....	29.95	
1730 2m pocket roll-up vertical ant .....	14.95	
1734 2m/440 2.6/6.3db glass mt antenna ...	39.95	
1736 6m J-Pole travel antenna .....	24.95	
1738 2m 2.6db glass mt antenna .....	29.95	
94 Remount kit for 1734/1738 .....	4.95	
1740 2m 1/4 wave ground plane ant .....	14.95	
1750 2m 3/4 wave ground plane ant .....	19.95	
1752 220 3/4 wave ground plane ant .....	19.95	
1754 2m/440 ground plane antenna .....	24.95	
1756 6m DX vertical antenna .....	69.95	
1762 6m 6db 3 el 6' boom beam .....	69.95	
1763 2m 3el portable beam .....	39.95	
1764 2 & 6m dual 1/4 super gain base ant ....	44.95	
1768 2m/440 4/7 el beam antenna .....	69.95	
1778 G5RV 160-10m 102' ant (needs tuner) ..	34.95	
1782 Super Hi-Q 10-30 loop/basic control .....	339.95	259 <sup>95</sup>
1786 Super Hi-Q 10-30 loop/dlx control .....	379.95	289 <sup>95</sup>
1312B 12vdc 300ma adapter; 1782/1786 ..	12.95	
1788 40m Super Hi-Q loop antenna .....	429.95	329 <sup>95</sup>
1793 80/40/20m vertical antenna .....	179.95	169 <sup>95</sup>
1796 40/20/15/10/6/2m 10' vertical ant .....	199.95	179 <sup>95</sup>
1798 80/40/30/20/17/15/12/10/6/2m 20' vert	269.95	249 <sup>95</sup>
1812 2m/440 foldover telescopic HT ant .....	19.95	
1816 2m/440 8.5" flexible/telescopic duck ...	19.95	
1817 2m/440 14.5" flexible/telescopic duck ..	24.95	
1824BB Cell look alike BNC scanner ant ....D	19.95	14 <sup>95</sup>
1828B Magnet mt BNC scanner antenna ....D	29.95	24 <sup>95</sup>
1828M Mag mt Motorola plug scan ant ....D	29.95	14 <sup>95</sup>

## CABLES

5020R MFJ TNC - Yaesu FT50R & compatibles	\$ 14.95	
5020RYV KAM VHF/KPC3 - Yae FT50R/comp ..	14.95	
5022 MFJ TNC - Alinco/Standard HT cable .....	14.95	
5022X PK-232 - Alinco/Sta HT cable .....	14.95	6 <sup>95</sup>
5022YV KAM VHF/KPC3 - Ali/Sta HT cable ....	14.95	
5024 MFJ TNC - Ico/Yae/Ali/RS HT cable .....	14.95	
5024B PK/PacComm/compatible - Ico/Yae/RS ..	14.95	
5024X PK-232 - Ico/Yae/Ali/RS HT cable ....D	14.95	9 <sup>95</sup>
5024YV KAM VHF/KPC3 - Ico/Yae/Ali/RS HT cbl	14.95	
5024Z PK-88 - Ico/Yae/Ali/RS HT cbl .....	14.95	4 <sup>95</sup>
5026 MFJ TNC - Kenwood HT cable .....	14.95	
5026X PK-232 - Kenwood HT cable .....	14.95	9 <sup>95</sup>
5026YV KAM VHF/KPC3 - Kenwood HT cable ..	14.95	
5026Z PK-88 - Kenwood HT cable .....	14.95	1 <sup>95</sup>
5060 MFJ TNC - Ken/Yae acc 6-pin mini DIN ..	19.95	
5060YV KPC9612 - Ken/Yae acc 6pin mini DIN	19.95	
5060YV KAM VHF/KPC3 - Ke/Ya acc 6pin mni DIN	19.95	
5063 MFJ TNC - Icom HF acc 8-pin DIN .....	19.95	
5063YH KAM HF - Icom HF acc 8-pin DIN .....	19.95	
5064 MFJ TNC - Icom VHF acc 5-pin DIN ....D	19.95	
5064YQ KPC9612 - Icom VHF 8-pin DIN .....	19.95	



## MFJ - continued

	Reg Sale
5064YV KAM VHF/KPC3 - Ico VHF acc 8pin DIN	19.95
5065 MFJ TNC - Ico IC-706 acc 13-pin DIN	19.95
5065YH KAM HF - Ico IC-706 acc 13-pin DIN	19.95
5065YV KAM VHF - Ico IC706 acc 13-pin DIN	19.95
5066 MFJ TNC - Kenwood HF acc 13-pin DIN	19.95
5066YH KAM HF - Ken HF acc 13-pin DIN	19.95
5080 MFJ TNC - Yaesu 8-pin cable	14.95
5080M MFJ TNC - Yaesu 8-pin modular	14.95
5080MYV KAM VHF/KPC3 - Yae 2500M/7400H	14.95
5080MZ PK-88 - Yae 2500M/7400H	14.95
5080YH KAM HF port - Yaesu 8-pin cable	14.95
5080YV KAM VHF/KPC3 - Yaesu 8-pin cable	14.95
5080Z PK-88 - Yaesu 8-pin cable	14.95
5082 Open end - 8-pin mic cable	9.95
5084 MFJ TNC - Icom 8-pin cable	14.95
5084M MFJ TNC - Icom 8-pin modular	14.95
5084MYH KAM HF - Icom 8-pin modular	14.95
5084MYV KAM VHF/KPC3 - Icom 8-pin mod	14.95
5084MZ PK-88 - Ico 8-pin modular	14.95
5084YH KAM HF port - Icom 8-pin cable	14.95
5084YV KAM VHF/KPC3 - Icom 8-pin cable	14.95
5084Z PK-88 - Icom 8-pin cable	14.95
5086 MFJ TNC - Kenwood/Alinco 8-pin cable	14.95
5086M MFJ TNC - Kenwood 8-pin modular	14.95
5086MYV KAM VHF/KPC3 - Ken 8-pin mod	14.95
5086MZ PK-88 - Ken 8-pin modular	14.95
5086YH KAM HF port - Ken/Alti 8-pin cable	14.95
5086YV KAM VHF/KPC3 - Ken/Alti 8-pin cable	14.95
5086Z PK-88 - Ken/Alti 8-pin cable	14.95
5088M MFJ TNC - Radio Shack 8-pin modular	14.95
5088MX PK-232 - RS 8-pin modular	14.95
5088MYV KAM VHF - RS 8-pin modular	14.95
5088MZ PK-88 - RS 8-pin modular	14.95
5205 5-pin DIN open end cable	4.95
5208 Open end - Ico HF/VHF acc 8-pin DIN	9.95
5213 Open end - Kenwood acc 13-pin DIN	9.95
5220R Open end - Yaesu FT50R/compatibles	9.95
5222 Open end - Ali split HT cable	9.95
5224 Open end - Ico/Yae/Alti/RS HT cable	9.95
5226 Open end - Kenwood HT cable	9.95
5268 Open end - modular phone plug cable	9.95
5412 IBM printer cable	9.95
5413 RS-232 6' cable DB-25M-25F	9.95
5414 RS-232 6' cable DB-25M-9F	9.95
5803/10 3' coax jumper cable	4.95

## RADIOS/TRANSCIVERS

8100K Shortwave regenerative Rcvr kit	\$ 59.95
8100W Shortwave regenerative Rcvr wired	79.95
8121 AM/FM/shortwave portable receiver	39.95
8400K 2m receiver kit	79.95
8400W 2m receiver wired	99.95
9606X 6m FM/data Xcvr w/mic	169.95
8621 VHF data radio w/145.01 MHz	119.95
8621X1 APRS ready VHF data radio/145.79 D	139.95
8621X2 APRS ready VHF data radio/144.39	139.95
8631 220 MHz data radio w/223.70 MHz	149.95
4110 Portable AC power supply	49.95
5100 Data radio cable - MFJ/TAPR	14.95
5100X Data radio cable - PK-232	14.95
5100YH Data radio cable - KPC-9612	14.95
5100YV Data radio cable - KAM/KPC-3	14.95
5100Z Data radio cable - PK-88	14.95
5106 Open end - 6pin mini Ken/Yae cable	4.95
9015 5w 15m CW Xcvr	189.95
9017 5w 17m CW Xcvr	189.95
9020 5w 20m CW Xcvr	189.95
9030 5w 30m CW Xcvr	189.95
9040 5w 40m CW Xcvr	189.95
27 Handle for CW station	4.95
412 Plug-in Curtis keyer	39.95
726 Plug-in audio filter	29.95
971 200w portable ant tuner w/meter	99.95
1770 Portable 15m dipole	34.95
1771 Portable 17m dipole	34.95

## Reg Sale

## MFJ - continued

1772 Portable 20m dipole	34.95
1773 Portable 30m dipole	34.95
1774 Portable 40m dipole	34.95
4110 Portable AC power supply	49.95
4112 Portable power pack	49.95
4114 Rechargeable power pack	69.95
9115B 9015 Xcvr/tuner/ps/ant	364.80
9117B 9017 Xcvr/tuner/ps/ant	364.80
9120B 9020 Xcvr/971 tuner/4114 ps/1772 ant	364.80
9130B 9030 Xcvr/tuner/ps/ant	364.80
9140B 9040 Xcvr/971 tuner/4114 ps/1774 ant	364.80
9402X 7w PEP 2m SSB Xcvr w/mic	299.95
9406X 10w PEP 6m SSB Xcvr w/mic	269.95
9410X 20w PEP 10m SSB Xcvr w/mic	269.95
9420X 12w 20m SSB Xcvr w/mic	249.95
9440X 12w 40m SSB Xcvr w/mic	249.95
9475X 12w 75m SSB Xcvr w/mic	249.95
62 Headphone kit	4.95
415B SSB Xcvr CW adapter; 9420X/9440X	49.95
416 CW adapter for 9402X/9406X/9410X	39.95
971 200w HF portable ant tuner w/meter	99.95
1770A 10m dipole for 9410X	34.95
1776 6m dipole for 9406X	34.95
4110 Portable AC power supply	49.95
4114 Rechargeable power pack	69.95

## ACCESSORIES

1305 5vdc 300ma adapter	\$ 12.95
1312 12vdc 300ma adapter, 2.5mm plug	12.95
1312B 12vdc 300ma adapter, 2.1mm plug	12.95
1312C 12vdc 300ma adapter; 2.5mm coaxial	12.95
1315 12vdc 500ma adapter	14.95
15 HamGear belt loop radio holder	14.95
18 HamGear chest harness/cargo pocket	29.95
92AA01 1300ma AA NiMH cell	2.99
201 1.5-250 MHz dip meter	119.95
202B RF noise bridge	59.95
203 160-10m bandswitched dip meter	99.95
204B Antenna bridge	79.95
206 Antenna current probe	79.95
207 160-10m SWR analyzer	79.95
208 2m SWR analyzer	79.95
209 1.8-170 MHz SWR analyzer	129.95
212 MatchMaker tune up device	79.95
214 Amplifier Saver	49.95
216 Deluxe Amplifier Saver	59.95
217 SWR analyzer, 30-50 MHz	79.95
218 SWR analyzer, 150-170 MHz	79.95
219B SWR analyzer, 440 MHz/N/50-239 adapt	99.95
224 2m FM signal analyzer	159.95
249B 1.8-170 MHz SWR analy/LCD counter	229.95
68 249 to 259 upgrade kit	29.95
259B 1.8-170 MHz SWR analy/RF res meter	249.95
29 Padded carrying pouch; 209/249/259 D	19.95
29B Pouch w/window; 209/249/259	24.95
29C Pouch w/window; 209/249/259B	24.95
66 1.8-30/30-170 dip coils; 209/249B/259B	19.95
92AA10 10-pack 1300ma AA NiMH cells	24.95
99 Package of MFJ 29C/66/1315	54.95
731 RFI filter for SWR analyzer	89.95
1315 12vdc 500ma ps; 209/249B/259B	14.95
270 Guardian Angel 400w PEP lightning protect	29.95
97 Gas tube plug for 270	9.95
281 ClearTone communications speaker	9.95
285L Mini spkr/mic L; Icom/Yaesu/Alinco	15.95
285W Mini spkr/mic for Icom IC-W2A	15.95
285W(CC) Mini spkr/mic; Alinco credit card HTs	17.95
286 Speaker mic; Kenwood	15.95
287 Mini spkr/mic; Kenwood	15.95
287L Mini spkr/mic L for Kenwood	15.95
288I Headset/mic; Icom/ADI/Sta/RS/older Yae	24.95
288K Headset/mic for Kenwood	24.95
288Y Headset/mic; Ico Q7/Yae FT10/50/VX1	24.95
291I Earphone for Icom spkr/mic	4.95

## Reg Sale

## MFJ - continued

291K Earphone for Kenwood spkr/mic	4.95
292I Earph/mic; Ico/older Yae/compatibles	17.95
292K Earphone/mic for Kenwood HT	17.95
292Y Earphone/mic; Ico Q7/Yae FT10/50/VX1	17.95
295I Mini spkr/mic; Icom & compatible HT	15.95
295Y Mini spkr/mic; Ico Q7/Yae FT10/50/VX1	15.95
296I Spkr/mic w/vol control, PTT lock; Icom	19.95
298I Vox spkr/mic; ADI/Alti/Ico/RS/Sta/Yae	39.95
310 BNC HT antenna window mount clip	14.95
312 BNC HATennaClip antenna mount	14.95
315 Universal Gripmatic HT mount holder	14.95
323 Keep-it-up battery maintainer	59.95
341M 17' antenna cable; NMO	19.95
341S 17' antenna cable; SO-239	19.95
346 600 MHz LCD frequency counter	189.95
382 Deluxe amplified communications spkr	39.95
392 Deluxe communication headphones	19.95
396 Boom mic/headphones	79.95
5396I Adapter for 396 with Icom Xcvr	14.95
5396K Adapter for 396 with Kenwood Xcvr	14.95
5396Y Adapter for 396 with Yaesu Xcvr	14.95
411 Personal Morse Code Tutor	69.95
413 Basic Code Tutor	39.95
414 Professional Morse Tutor w/LCD	199.95
417 Code Tutor with QSO	59.95
418 Code Tutor with LCD display	79.95
26 Carrying pouch for 418	12.95
432 Voice Memory Keyer	119.95
462B RTTY/ASCII/CW/AMTOR Rcvr multi-reader	179.95
5162 Receiver cable for 462B	4.95
550 Hand key	7.95
552 CW key interface for 2m HT	59.95
554 Deluxe CW practice oscillator	79.95
554X Dlx oscillator w/281 spkr/550 key	99.95
557 Code oscillator w/key	24.95
641-12 Battery charger; Icom BP-131/132	49.95
10-BC1-2 Charger cup; Icom BP-131/132	12.95
641-13 Battery charger; Icom BP-173/180	49.95
10-BC1-3 Charger cup; Icom BP-173/180	12.95
641-K Battery charger for Kenwood	49.95
641-Y2 Batt cgr; Yaesu FNB-10/11/12/17/27	49.95
10-BCY-2 Cgr cup; Yae FNB-10/11/12/17/27	12.95
641-Y3 Battery charger; Yaesu FNB-31/33	49.95
10-BCY-3 Charger cup; Yaesu FNB-31/33	12.95
641-Y4 Batt cgr; Yaesu FNB-40/41/V47/49	49.95
10-BCY-4 Cgr cup; Yae FNB-40/41/V47/49	12.95
701 Toroid RFI filters	14.95
702 200w low-pass filter	24.95
704 1kw low-pass filter	39.95
711 High pass filter	19.95
713 2m HT intermod filter	59.95
714 2m mobile intermod filter	59.95
762 81db 170MHz BNC attenuator	69.95
801 Super compact field strength meter	19.95
802 Bipolar field strength meter	39.95
850 AC line voltage monitor	19.95
912 W9INN remote balun	49.95
916 2m/440 duplexer	29.95
931 Artificial ground unit	79.95
1025 Noise canceling antenna	149.95
1026 Deluxe noise canceling unit w/antenna	169.95
1046 1.6-33MHz receiver passive preselector	99.95
1048 1.6-33MHz Xcvr passive preselector	119.95
1112 Multiple DC outlet	29.95
1116 Dlx multiple DC outlet	44.95
1117 High current multiple DC outlet	49.95
1118 Dlx high current multiple DC outlet	69.95
1213 Interface for JVFAH/HamComm	39.95
1266 C64 disk code tutor program	19.95
76 1266/67 interface brd; kyr/keyboard	19.95
1268 IBM PC memory keyer	49.95
1269 IBM code tutor	19.95
1281 IBM Easy-DX logging program	39.95
1286 Gray Line DX Advantage prog; IBM	29.95



# PRICE GUIDE

## MFJ - continued

1292	Video digitizer for IBM .....	199.95	99 <sup>95</sup>
1610	Novice theory tutor soft; IBM .....	29.95	9 <sup>95</sup>
1611	Tech theory tutor soft; IBM .....	29.95	9 <sup>95</sup>
1612	General theory tutor soft; IBM .....	29.95	9 <sup>95</sup>
1632	Packet Windows software .....	29.95	14 <sup>95</sup>
1634	Extra theory tutor soft; Mac .....	29.95	4 <sup>95</sup>
1635	No-code theory tutor software; Mac .....	49.95	19 <sup>95</sup>
1680K	Windows soft package; Ken .....	109.95	59 <sup>95</sup>
1680Y	Windows soft package; Yaesu .....	109.95	59 <sup>95</sup>
1682	Packet Windows software .....	29.95	
1683I	Rig Windows software for Icom .....	29.95	
5383I	Icom Xcvt interface cable .....	49.95	
1683K	Rig Windows software for Kenwood .....	29.95	
5383K	Kenwood Xcvt interface cable .....	49.95	
1683Y	Rig Windows software for Yaesu .....	29.95	
5383Y	Yaesu interface cable, std 6-pin DIN .....	49.95	
5383YB	Yaesu interface cable, mini 6-pin DIN .....	49.95	
1700B	Combination ant/xmtr switch .....	79.95	
1701	6-position coax switch .....	49.95	
1702BN	2-pos 1.1 GHz type N switch .....	31.95	24 <sup>95</sup>
1702C	2-pos coax switch/lightning protect ..	21.95	
1702CN	2-pos 1.1GHz N switch/lightning protect	31.95	
1704	4-pos 500 MHz switch/lightning protect	59.95	
1704N	4-position type N switch .....	69.95	
4035MV	Dlx 30A adjustable ps, 35A surge .....	149.95	139 <sup>95</sup>
4225MV	MightyLite 22A switching ps, 25A surge	149.95	139 <sup>95</sup>
4245MV	MightyLite 40A switching ps, 45A surge	199.95	189 <sup>95</sup>
5002	Digital/analog breadboard trainer spec order	349.95	329 <sup>95</sup>

## MG Electronics (MGE)

HFS-1	10w mobile spkr, 3.5mm-plug .....	19 <sup>95</sup>	
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## MAGELLAN (MAG)

GPS-300	GPS receiver .....	\$139.99	99 <sup>95</sup>
GPS-320	12 ch GPS receiver .....	279.99	199 <sup>95</sup>
GPS-2000XL	12 ch GPS receiver .....	209.99	149 <sup>95</sup>
GPS-4000XL/12	12 ch GPS receiver w/case D .....	349.99	219 <sup>95</sup>
00-09018-000	PC ext power cig cable .....	14.99	
00-69007-000	External power/data module .....	49.99	
00-69038-000	PC kit/Map 'n Track CDROM D .....	99.99	89 <sup>95</sup>
GPS TrackerTRAK	12 ch color GPS/carry case ..	391.99	279 <sup>95</sup>
GPS Tracker	12 ch GPS w/wrist strap .....	321.99	229 <sup>95</sup>
00-19044-000	Low profile external ant .....	95.95	
00-19060-000	Power/data cable .....	24.99	
00-19065-000	PC kit/Map 'n Track CDROM D .....	99.99	89 <sup>95</sup>
00-19067-000	PC cable w/cig adapter .....	39.99	
Meridian XL	GPS/plot/detach ant/case .....	396.65	269 <sup>95</sup>

## MAHA (MAH)

AA-FB	1.2v 1300ma AA NiMH batt cell w/tabs ea	\$ 3.50	2 <sup>95</sup>
AA-T	1.2v 1200ma AA size NiMH batt cell ea	3.50	2 <sup>95</sup>
AAA-T	1.2v 500ma AAA size NiMH batt cell ea	3.50	2 <sup>95</sup>
MH-2A4	Slow charger for 4 max AA NiMH .....	11.95	
MH-C124S	Reg cgr; 1-4 AA/AAA NiMH/NICD .....	9.95	
MH-C204F	Quick cgr/condi; 2/4 AA/AAA NiMH/NICD ..	24.95	
MH-BP-7	900ma 13.8v lcom nickel hydride ..	69.95	
MH-BP-8	1200ma 8.4v lcom nickel hydride ..	59.95	
MH-BP-8H	1800ma 8.4v lcom nickel hydride ..	69.95	
MH-BP-83	1200ma 7.2v lcom nickel hydride ..	49.95	
MH-BP-132B	1200ma 12v lco blk nick hyd/mic ..	59.95	
MH-BP-132G	1200ma 12v lco gray nick hyd/mic ..	59.95	
MH-BP-173	650ma 9.6v lcom nickel hydride ..	69.95	
MH-BP-180	1000ma 7.2v lcom nickel hydride ..	49.95	
MH-BP-199	700ma 6v lcom nickel hydride .....	55.95	
MH-BP-200	680ma 9.6v lcom nickel hydride ..	59.95	
MH-CNB-152	900ma 12v Sta nickel hydride ..	59.95	
MH-CNB-153	1200ma 7.2v Sta nickel hydride ..	49.95	
MH-FNB-12	900ma 12v Yaesu nickel hydride ..	59.95	
MH-FNB-17	900ma 7.2v Yaesu nickel hydride ..	49.95	
MH-FNB-27	900ma 12v Yaesu nickel hydride ..	59.95	
MH-FNB-31	650ma 4.8v Yaesu nickel hydride ..	49.95	
MH-FNB-38	650ma 9.6v Yaesu nickel hydride ..	59.95	
MH-FNB-40H	650ma 7.2v Yae nick hyd/ spg clip ..	59.95	
MH-FNB-41	900ma 9.6v Yae nick hyd/spg clip ..	55.95	
MH-FNB-V47	1800ma 7.2v Yaesu nickel hyd ..	69.95	

## MAHA - continued

V47 Belt Clip	Spring loaded belt clip for Yae	9.95	
MH-PB-8	1200ma 12v Kenwood nickel hydride	62.95	
MH-PB-17	900ma 12v Kenwood nickel hydride	69.95	
MH-PB-18	1200ma 7.2v Ken nick hyd; wall cgr only	49.95	
MH-PB-32	900ma 6v Kenwood nickel hydride	47.95	
MH-PB-34	900ma 9.6v Kenwood nickel hydride	57.95	
MH-PB-39	1050 ma 9.6v Kenwood nickel hyd ..	59.95	
MH-PB-39H	1800 ma 6v Kenwood nickel hyd	59.95	
MH-C777	Univ cgr/conditioner; nicad/nimh ..	49.95	
MHS-CW4	Clip-leads for external charging	3.99	
MH-C888	Univ drop-in rapid cgr/cond; nicad/nimh	59.95	
MH-101-I1	Cgr;lco 157/160/174/131/2/Mah 132B/G	69.95	
MH-101-I3	Cgr;lco 171/172/173/180/Mah BP173	69.95	
MH-101-Y1	Cgr;Yae 10/11/12/17/25/27/Mah 12/27	69.95	
MH-101-Y2	Cgr;Yae FNB31/38/Mah MHFNB38	69.95	
MH-101-Y3	Cgr;Yae 40/41/42/Mah MHFNB41	69.95	
MH-800K	500mw spkr/mic w/clip; Kenwood ..	19.95	
MH-800S	500mw spkr/mic/clip; Ali/lco/Sta/Yae	19.95	
MH-800Y	500mw spkr/mic; Yae FT50/VX1R ..	24.95	
MH-A101	5/35w 2m FM amplifier .....	69.95	
MH-A102	5/35w 2m FM/SSB amp/preamp ....	89.95	
MH-A103	5/50w 2m FM/SSB amp/preamp ....	119.95	
MH-A104	5/100w 2m FM/SSB amp/preamp ....	229.95	
MH-A201	5/45w 2m/5/35w 440 FM amp .....	159.95	
MH-A301	5/50w 2m HT dock boost amp/pre ..	115.95	
MH-A302	5/45/5/35w 2m/440 HT dock boost	165.95	
MHS-I1	Ico 2G/02/2/32 adapter; A301/302 ..	9.95	
MHS-I2	Ico 2SAT/W2 adapter; A301/302 ....	9.95	
MHS-I3	Ico 2GXAT/W21AT adapt; A301/302 ..	9.95	
MHS-I4	Ico W32/31/T7/22 adapt; A301/302 ..	11.95	
MHS-I5	Ico IC-T8A adapter; A301/302 .....	11.95	
MHS-K1	Ken 25/26/75/77 adapt; A301/302 ..	9.95	
MHS-K2	Ken TH22/79 adapter; A301/302 ..	9.95	
MHS-K3	Ken G71A/D7A adapt; A301/302 ..	11.95	
MHS-S1	ADI/Standard adapter; A301/302 ..	9.95	
MHS-Y1	Yae 23/41E/470 adapt; A301/302 ..	9.95	
MHS-Y2	Yae 26/415/530 adapt; A301/302 ..	9.95	
MHS-Y3	Yae FT11/41/51 adapt; A301/302 ..	11.95	
MHS-Y4	Yae FT10/40/50 adapt; A301/302 ..	11.95	
MH-VOX-K	Deluxe VOX spkr/mic for Kenwood	39.95	
MH-VOX-S	Dlx VOX spkr/mic; Ali/lco/Sta/Yae	39.95	

## MALDOL (MAL)

ARD-5B	2m/440 0/3.8db 19.6" mobile ant ..	\$ 59.99	29 <sup>95</sup>
ARD-6	2m/440 2.6/4.9db 26.8" mobile .....	70.99	49 <sup>95</sup>
ARD-12	2m/440 4.3/6.8db 48.8" mobile .....	97.99	59 <sup>95</sup>
ARD-12B	Blk 2m/440 4.3/6.8db 48.8" mob ..	97.99	59 <sup>95</sup>
ARD-16B	Blk 2m/440 5/7.7db 65.6" mob .....	99.99	69 <sup>95</sup>
ARS-50	6m 1/4 wave 61.2" mobile .....	74.99	39 <sup>95</sup>
ARS-146	2m 4.1db 56" mobile ant .....	77.99	49 <sup>95</sup>
ARS-440	440 5.5db 38.4" mobile ant .....	67.99	29 <sup>95</sup>
ARS-440B	Black 5.5db 38.4" mobile .....	67.99	29 <sup>95</sup>
EX-110	2m/440 3/5.5db 37.8" mob ant .....	64.99	29 <sup>95</sup>
EX-111	2m/440 3.6/6db 44" mobile .....	77.99	39 <sup>95</sup>
EX-111B	Blk 2m/440 3.6/6db 44" mobile ..	77.99	49 <sup>95</sup>
FA-50	2m/440 2.15/3.2db 18.8" mag .....	51.99	29 <sup>95</sup>
HS-702S	2m/440 0/3.2db 17.6" duck .....	19.99	
VM-2HP	2m 43.2" 3db 300w mobile .....	47.99	
VM-727CR	2m/440 41.6" 3.8/6.2db .....	67.99	
VM-727HP	2m/440 36" 3/5.5db 300w .....	53.99	

## MAXON (MAX)

27-KC	Docking handheld/AM Mobile CB .....	\$139.95	59 <sup>95</sup>
27-MCB	Compact handheld AM Mobile CB ..	129.95	49 <sup>95</sup>
FRS-114	FRS handheld .....	99.95	49 <sup>95</sup>
DV-7510	Wall charger; FRS-114 .....	10.95	8 <sup>95</sup>
WTA-9F	Ear speaker; FRS-114 .....	6.95	2 <sup>95</sup>
GMRS-21X	1w 2ch GMRS/batt/cgr/AA holder ..	199.95	149 <sup>95</sup>
MX-49FX	5 ch 49 MHz ear mic Xcvt .....	89.95	49 <sup>95</sup>
MX-49HX	5 ch 49 MHz boom mic/headset Xcvt ..	89.95	49 <sup>95</sup>
MX-49SX	49 MHz boom mic/headset Xcvt .....	49.95	29 <sup>95</sup>
PC-50	5ch 49MHz hand-held/PTT/VOX headset	79.95	49 <sup>95</sup>
WX-70	Weather monitor/alert w/ps .....	49.95	39 <sup>95</sup>

## Reg Sale

## MIDLAND (MID)

23-505	1.5-150MHz dual meter SWR/power ..	\$ 24.95	
74-109	Weather/hazard alert radio w/ps .....	59.95	39 <sup>95</sup>
74-200	SAME weather/hazard alert radio/ps ..	99.00	89 <sup>95</sup>
75-510XB	Family radio handheld/batts/cgr ..	129.95	89 <sup>95</sup>
22-410	Speaker/mic for 75-510 .....	34.95	
22-430	Throat mic/ear/PTT box; 75-510 ....	69.95	

## MIRAGE (MIR)

A-1015G	50-52 FM/SSB 10/150w amp/preamp	\$389.00	349 <sup>95</sup>
B-34	2m FM 2/35w amplifier .....	69.95	
B-34G	2m FM/SSB 3.5/35w amp/preamp ....	89.95	
B-55G	2m FM 50w amp for handheld .....	118.95	109 <sup>95</sup>
B-215G	2m FM/SSB 2/150w amp/preamp .....	379.00	339 <sup>95</sup>
B-310G	2m FM/SSB 4/100w amp/preamp ....	199.00	179 <sup>95</sup>
B-320G	2m FM/SSB 50/200w amp/preamp ..	449.95	399 <sup>95</sup>
B-510G	Dlx 100w 2m FM amp for HT/mobile ..	229.95	209 <sup>95</sup>
B-1016G	2m FM/SSB 10/160w amp/preamp ..	379.00	339 <sup>95</sup>
B-1030G	2m FM/SSB 10/300w amp/preamp ..	689.00	619 <sup>95</sup>
B-2516G	2m FM/SSB 25/160w amp/preamp ..	299.00	269 <sup>95</sup>
B-2530G	2m FM/SSB 25/300w amp/preamp ..	689.00	619 <sup>95</sup>
B-5016G	2m FM/SSB 50/160w amp/preamp ..	299.00	269 <sup>95</sup>
B-5030G	2m FM/SSB 50/300w amp/preamp ..	669.00	599 <sup>95</sup>
BD-35	2m/440 4/45//4/35w HT amp .....	159.95	149 <sup>95</sup>
BD-38	2m/440 4/80//4/80w HT amp .....	299.95	279 <sup>95</sup>
B-24G	5/50w 2m HT dock boost amp/pre ..	114.95	
BD-25	5/45//5/35w 2m/440 HT dock boost ..	164.95	
MI-1	Ico 2G/02/2/32 adapter; B24G/BD25 ..	9.95	
MI-2	Ico 2SAT/W2 adapter; B24G/BD25 ....	9.95	
MI-3	Ico 2GXAT/W21AT adapt; B24G/BD25 ..	9.95	
MI-4	Ico W32/31/T7/22 adapt; B24G/BD25 ..	9.95	
MK-1	Ken 25/26/75/77 adapt; B24G/BD25 ..	9.95	
MK-2	Ken 22/79 adapter; B24G/BD25 .....	9.95	
MS-1	ADI/Standard adapter; B24G/BD25 ..	9.95	
MY-1	Yae 23/41E/470 adapt; B24G/BD25 ..	9.95	
MY-2	Yae 26/415/530 adapt; B24G/BD25 ..	9.95	
MY-3	Yae FT11/41/51 adapt; B24G/BD25 ..	9.95	
MY-4	Yae FT10/40/50 adapt; B24G/BD25 ..	9.95	
C-22G	220 FM/SSB 2/20w amp/preamp .....	169.00	154 <sup>95</sup>
C-211G	220 FM/SSB 2/110w amp/pre .....	339.00	299 <sup>95</sup>
C-106G	220 FM/SSB 10/60w amp/preamp ..	239.00	214 <sup>95</sup>
C-1012G	220 FM/SSB 10/120w amp/preamp ..	339.00	299 <sup>95</sup>
C-1022G	220 FM/SSB 10/220w amp/preamp ..	655.00	589 <sup>95</sup>
C-2512G	220 FM/SSB 25/120w amp/preamp ..	315.00	289 <sup>95</sup>
C-2522G	220 FM/SSB 25/200w amp/preamp ..	655.00	589 <sup>95</sup>
C-5012G	220 FM/SSB 50/120w amp/pre .....	334.00	299 <sup>95</sup>
C-5022G	220 FM/SSB 50/200w amp/preamp ..	639.00	579 <sup>95</sup>
D-15N	430 FM/SSB/ATV 2/15w type N amp ...	189.00	169 <sup>95</sup>
D-26N	440 FM/SSB 2/60w type N amplifier ..	269.00	244 <sup>95</sup>
D-1010N	440 FM/SSB 10/100w type N amp ..	395.00	354 <sup>95</sup>
D-3010N	440 FM/SSB 30/100w type N amp ..	365.00	329 <sup>95</sup>
D-1010-ATVN	430 ATV 10/100w type N amp ..	414.00	369 <sup>95</sup>
RC-1*	Remote control head w/18' cable .....	45.95	

\*Not for B-23/C-22/D-26

The following Repeater Amplifiers are available on Special Order. Specify SO-239 or type N connectors

A-1015NR	6m FM 2/80w type N amplifier .....	\$599.00	539 <sup>95</sup>
A-1015R	6m FM 2/80w SO-239 amplifier ...†	579.00	449 <sup>95</sup>
B-215NR	2m FM 1/110w type N amplifier ....	579.00	524 <sup>95</sup>
B-215R	2m FM 1/110w SO-239 amplifier .....	559.00	504 <sup>95</sup>
B-1016NR	2m FM 2/120w type N amplifier .....	619.00	559 <sup>95</sup>
B-1016R	2m FM 2/120w SO-239 amplifier ....	599.00	539 <sup>95</sup>
B-2516NR	2m FM 12/120w type N amplifier ..	569.00	519 <sup>95</sup>
B-2516R	2m FM 12/120w SO-239 amplifier ..	549.00	499 <sup>95</sup>
C-211NR	220 FM .5/80w type N amplifier .....	649.00	584 <sup>95</sup>
C-211R	220 FM .5/80w SO-239 amplifier .....	629.00	564 <sup>95</sup>
C-1012NR	220 FM 5/90w type N amplifier .....	649.00	584 <sup>95</sup>
C-1012R	220 FM 5/90w SO-239 amplifier ...†	629.00	429 <sup>95</sup>
C-2512NR	220 FM 15/90w type N amplifier ..	615.00	559 <sup>95</sup>
C-2512R	220 FM 15/90w SO-239 amplifier ..	595.00	539 <sup>95</sup>
D-1010NR	440 FM 4/80w type N amplifier ....	654.00	589 <sup>95</sup>
D-3010NR	440 FM 12/80w type N amplifier ..	625.00	564 <sup>95</sup>



## MIRAGE - continued

	Reg	Sale
D-1010-ATVN-R 430 ATV 4/80w type N amp	654.00	589 <sup>95</sup>
<b>PREAMPS</b>		
KP-1/10M 10m in shack preamp	\$139.00	129 <sup>95</sup>
KP-1/6M 6m in shack preamp	139.00	129 <sup>95</sup>
KP-1/2M 2m in shack preamp	139.00	129 <sup>95</sup>
KP-1/220 220 in shack preamp	139.00	129 <sup>95</sup>
KP-1/440 440 in shack preamp	139.00	129 <sup>95</sup>
KP-2/10M 10m mast mount preamp	195.00	179 <sup>95</sup>
KP-2/6M 6m mast mount preamp	195.00	179 <sup>95</sup>
KP-2/2M 2m mast mount preamp	195.00	179 <sup>95</sup>
KP-2/220 220 mast mount preamp	195.00	179 <sup>95</sup>
KP-2/440 440 mast mount preamp	195.00	179 <sup>95</sup>

## WATTMETERS

MP-1 160-10m 25/200/2kw PEP wattmeter	\$235.00	219 <sup>95</sup>
MP-2 6 & 2m 50/500/1.5kw PEP wattmeter	235.00	219 <sup>95</sup>
MP-3 420-450 5/50/500w PEP wattmeter	265.00	249 <sup>95</sup>

## Monitor America (MON)

Monitor America Scanner frequency book	\$ 29.95	
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## MOTOROLA (MOT)

50988 Grey TalkAbout FRS	\$ 89.99	79 <sup>95</sup>
50993 Green TalkAbout Plus FRS	124.99	109 <sup>95</sup>
50994 Grey TalkAbout Plus FRS	124.99	109 <sup>95</sup>
50995 Camouflage TalkAbout Plus FRS	144.99	119 <sup>95</sup>
53543 Camouflage TalkAbout 250 FRS	144.99	119 <sup>95</sup>
53590 Blue TalkAbout 250 FRS	124.99	109 <sup>95</sup>
53592 Black TalkAbout 250 FRS	124.99	109 <sup>95</sup>
50226 Headset w/microphone	14.99	
53716 Black TA-280SLK NiMH FRS	189.99	
53725 Headset w/microphone	14.99	
53544 2w grey TalkAbout Distance GMRS	259.99	199 <sup>95</sup>
53547 2w grey TalkAbout Distance Plus GMRS	279.99	219 <sup>95</sup>

## NCG (NCG)

BB-516 Motorcycle intercom set	\$ 89.95	59 <sup>95</sup>
BJP-514 Motorcycle earph/mic; Ali/Ico/Sta/Yae D	69.95	49 <sup>95</sup>
BJP-514K Motorcycle earphone/mic; Ken	69.95	49 <sup>95</sup>
EN-921K Spkr/mic earpiece; Kenwood	44.95	24 <sup>95</sup>
MC-910 Ear/bm mic w/cap-clip/ear hook; not Ken D	49.95	34 <sup>95</sup>
MC-910K Ear/bm mic w/cap-clip/ear hook; Ken HT D	49.95	34 <sup>95</sup>
MH-900PK Earpc/boom mic/PTT; Ken HT	39.95	19 <sup>95</sup>
MP-28 Boom mic/headset/PTT; all HT but Ken	39.95	
MP-28K Boom mic/headset/PTT for Ken HT	39.95	
NCG-3050 1.6-60MHz 30/300/3kw meter	149.95	129 <sup>95</sup>
NCG-3000 118-530MHz 5/20/200w PEP meter	109.95	99 <sup>95</sup>
Power Pocket 12v 2AH lead acid batt/cgr	66.95	
RP-150 20A variable ps/lighted meters/fan	169.95	159 <sup>95</sup>
RP-300 30A variable ps/lighted meters/fan	259.00	239 <sup>95</sup>

## NAVAL (NAV)

HTS-3 5-15vdc amplified speaker	\$ 29.95	
MK-303 Earphone/PTT/mic; lcom HT's	14.95	4 <sup>95</sup>

## NEW WAVE (NEW)

Adventurer 12' extended Portaple alum mast	\$109.95	
Traveler 19' extended Portaple alum mast	124.95	
Rover 26' extended Portaple alum mast	149.95	
Expeditioner 33' extended Portaple alum mast	174.95	
Explorer 40' extended Portaple alum mast	199.95	
Big Foot Welded, unpainted park-on mt	119.95	
Snap-on Mount Clamp on mt; ant-mast	19.95	

## NORCOMM (NOR)

NC-101 Tunable CTCSS encoder	\$ 19.95	
NC-104 Programmable CTCSS encoder	24.95	
NC-106 Prog CTCSS encoder/decoder	54.95	
NC-401 Sub-miniature DTMF decoder	59.95	

## NYE VIKING (NYE)

### ANTENNA TUNERS AND ACCESSORIES

MBV-A 3kw tuner with ant switch & meters	\$879.95	
020-001 2kw low-pass filter	56.95	

### MASTER KEY

330-001 Black enamel base w/cable, plug	\$ 72.95	
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## NYE - continued

	Reg	Sale
330-C Chrome plated Master Key/cable/plug	139.95	
<b>HEAVY DUTY SPEED-X KEYS WITH NAVY KNOBS</b>		
320-001 No shorting switch	\$ 44.95	
320-003 As above, w/shorting switch	51.95	
322-001 Brass hardware, no switch	35.95	
322-003 As above, w/shorting switch	44.95	
<b>STANDARD SPEED-X KEYS</b>		
310-001 Black, no shorting switch	\$ 40.95	
310-003 As above, w/shorting switch	45.95	
312-001 Brass arm, no shorting switch	32.95	
312-003 As above, w/shorting switch	39.95	

## Oak Bay Technologies (OAK)

AM-101B BNC duck window mount	\$ 24.95	
BS-25 Automatic car battery saver module	39.95	
CA-232HH Handheld packet cable	34.95	19 <sup>95</sup>
CA-232U Universal packet cable	34.95	19 <sup>95</sup>
LP-11P 1.8-30 MHz 1kw low-pass filter	69.95	
LP-50 1.8-54 MHz 1kw low-pass filter	69.95	
PS-101 Hvy duty DC pwr strip w/fuses	84.95	59 <sup>95</sup>
PS-612M Hvy duty DC pwr strip w/breakers	64.95	

## Optoelectronics (OPT)

R-10 30-2000MHz FM Interceptor	D \$299.00	199 <sup>95</sup>
Clipmate Windshield mt; Scout/400	25.00	4 <sup>95</sup>
Spectrum FCC data CDROM/Scout prog	29.00	4 <sup>95</sup>
SSB-220A SSB/gen purpose 3GHz bench ctr	329.00	199 <sup>95</sup>
CB-232 PC interface cable	39.00	9 <sup>95</sup>
Optolog Software; 8040/SSB-220A	25.00	2 <sup>95</sup>

## Oregon Scientific (ORE)

WM-918 Dlx weather station w/rain gauge	\$299.95	199 <sup>95</sup>
SW-918 PC software/cable for WM-918	29.95	
WR-102 Port WX/hazard radio/SAME alert	69.95	
WR-3300 Weather/hazard radio/alert w/ps	49.95	39 <sup>95</sup>
WR-8800 Port WX/hazard radio/alert w/ps	79.95	59 <sup>95</sup>

## OUTBACKER (OUT)

OB-8 300w PEP 6' 75-10m 8-band mobile ant	\$279.95	
OB-8HP 500w PEP 6' 75-10m 8-band mob ant	299.95	
OB-S8 8-band 300w PEP split ant/storage bag	299.95	
OB-8TRI 3-pc 300w PEP 6' 8-band port ant	329.95	
OB-M 300w PEP 6' 75/40/20/17/10m/HF marine	429.95	
Perth 150w PEP 7.5' 75-10m mobile ant	289.95	
Perth Plus 150w PEP 6' 75-10m+6m/2m mob ant	299.95	
Stealth Plus 100w PEP 4' 75-10m+6/2m ant	269.95	
Outreach 300w PEP 12' 160-10m antenna	399.95	
Outreach 500 600w PEP 12' 80-6m antenna	439.95	
Outrunner 150w PEP 9' 160-10m antenna	349.95	
ALP Outpost Base tripod mtg sys for mob ant	199.95	
OB-360/AOSB Tnk mt/spg/coax; Perth/St+/Perth+	99.95	
OB-SB ¾-24 spring and ½" hole base	99.95	
Diamond K-400-3/8C ¾-24 trunk mt, 6' coax	69.95	
Diamond C-110 10' ext cable; K-400-3/8C	14.95	

## PALCOMM (PAC)

APRS port switch	\$ 29.95	
BayMod-25 Modem	45.95	29 <sup>95</sup>
HandiPacket Small TNC for handhelds	229.95	
PicoPacket TNC, 128K RAM	149.95	
PicoPacket battery model TNC, 128K RAM	209.95	
PicoPacket dual serial port TNC, 128K RAM	199.95	
Spirit-2 Standard high performance controller	239.95	
Tiny-2 Mk-2 Multi-purpose TNC	149.95	
Tiny-2 Mk-2/GPS TNC w/GPS & mag GPS ant	499.95	

## Palomar Engineers (PAL)

FER-2 RF ferrite toroid kit	\$ 25.95	
5-15 MHz plug-in loop (HF-1)	99.95	
1.6-5 MHz plug-in loop (160m, 80m)	99.95	
.55-1.6 MHz plug-in loop (AM broadcast)	99.95	
150-550 KHz plug-in loop (LF, 1750m)	99.95	
40-150 KHz plug-in loop (WWVB, Loran)	99.95	89 <sup>95</sup>
MDB-2 Mag dipole receiving balun	39.95	14 <sup>95</sup>

## PALOMAR ENG - continued

	Reg	Sale
MSB-3 Magnetic switch receive balun	D 135.00	69 <sup>95</sup>
P-405 1.8-54MHz 20db 9v Rcv preamp	D 149.95	49 <sup>95</sup>
P-508 .2-30MHz 12v active Rcvr preamp	D 99.95	89 <sup>95</sup>
PCM-1 1-30MHz RF current meter	135.00	129 <sup>95</sup>
PK-203 Brass Jones single lever key	D 230.00	169 <sup>95</sup>
PS-95 AC adapter for M-835/840	D 15.95	
PT-340 Tuner-Tuner (use with ant tuner)	99.95	
RFI-3 RF interference kit	D 20.95	14 <sup>95</sup>
RFI-4 RF interference kit	25.95	
SMB-5 SmartBridge prog; AT computers	D 29.95	9 <sup>95</sup>
VLF-A VLF converter; 10-500 KHz to 80m	89.95	
VLF-S VLF conv; 10-500 KHz to 4-4.5 MHz	89.95	

## PAR (PAR)

OA-28 10m horizontal omni antenna	\$ 74.95	
OA-50 6m horizontal omni antenna	63.95	
SK-50 Stacking harness for OA-50	36.95	
OA-144 2m horizontal omni antenna	54.95	
SK-144 Stacking harness for OA-144	34.95	
OA-222 220 horizontal omni antenna	54.95	
SK-222 Stacking harness for OA-222	34.95	
OA-432 430 horizontal omni antenna	54.95	
SK-432 Type N stacking harness; OA-432	54.95	
UHFDN450 440 dual band notch filter	62.95	
VHFDN152 2m dual band notch filter	62.95	
VHFDN152HT 2m dual band HT notch filter	68.95	
VHFTN152-158 2m dual band+pager notch filt	82.95	
UHF-12 12" RG58/silver/gold/tef PL259s	9.95	

## PATCOMM (PAT)

PC-16000 HF Xcv/dig modem/keyboard	1649.00	1269 <sup>95</sup>
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## PENETROX (PEN)

Penetrox A 4 oz tube for antennas	\$ 12.95	
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## PERCON (PEC)

Spectrum FCC database CDROM	\$ 29.95	9 <sup>95</sup>
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## PERIPHEx (PER)

BP-3 8.4v 350ma battery for lcom	\$ 48.95	29 <sup>95</sup>
BP-132 12v 600ma battery for lcom	51.80	29 <sup>95</sup>
BP-132A 12v 600ma batt for lcom	51.80	29 <sup>95</sup>
CNB-152 12v 600ma batt; Standard	41.95	24 <sup>95</sup>
CNB-153 7.2v 1100ma batt; Standard	44.95	29 <sup>95</sup>
EBP-34 4.8v 1200ma batt for Alinco	42.40	24 <sup>95</sup>
FNB-11 12v 800ma battery for Yaesu	65.95	39 <sup>95</sup>
FNB-14 7.2v 1100ma batt for Yaesu	42.95	29 <sup>95</sup>
FNB-14S 7.2v 1700ma batt for Yae	65.95	39 <sup>95</sup>
FNB-33 4.8v 1700ma batt for Yaesu	37.50	24 <sup>95</sup>
FNB-35 7.2v 600ma batt for Yaesu	46.80	19 <sup>95</sup>
FNB-38 9.6v 650ma batt for Yaesu	64.30	39 <sup>95</sup>
PB-7S 7.2v 1700ma batt for Ken	59.95	39 <sup>95</sup>
PB-17 12v 800ma battery for Kenwood	50.95	39 <sup>95</sup>
PB-33 6v 1200ma battery for Kenwood	38.95	29 <sup>95</sup>
Santec ST-142 9.6v 600ma batt; ST142	24.95	9 <sup>95</sup>

## PHILIPS (PHI)

U-105 Light duty rotor	\$ 69.95	
TB-105 Thrust bearing	18.95	

## PIPO TOUCH-TONE PADS (PIP)

PK-1 12-digit pad	\$ 71.95	
PK-1K 12-digit pad w/delay relay	78.95	
PK-1M 12-digit pad for surface mtg	71.95	
PK-2 16-digit pad	76.95	
PK-2K 16-digit pad w/delay relay	83.95	
PK-2M 16-digit pad for surface mtg	76.95	

## POLYPHASE (PLY)

### LIGHTNING PROTECTION

IS-50NX-C2 125-1000 375/125/50w N flange	\$ 61.95	
IS-50UX-C0 1.5-400 2kw/375/125w flange mt	61.95	
IS-50UX-C1 50-700MHz 375/125w flange mt	61.95	
IS-850LX-C2 125-1000 375/125/50w N bulkhead	64.95	
IS-850LU-C0 1.5-400 2kw/375/125w bulkhead	64.95	
IS-850LU-C1 50-700 375/125w bulkhead mt	64.95	
IS-IE50LU-C0 1.5-400 dlx 2kw/375/125w bulk	129.95	



# PRICE GUIDE

## POLYPHASER - continued

IS-IE50LU-C1	50-500 dlx 375/125w bulkhead	129.95
IS-IE50LN-C1	50-700 dlx 375/125w N bulkhead	117.95
BF Adapter	Bulkhead to flange mt adapter	9.95
FB Adapter	Flange to bulkhead mt adapter	11.95
IS-PLD0-120-15A	120v 15A power protector	172.95
IS-PLD0-120-20A	120v 20A power protector	215.95
IS-RCT	8-wire rotor control protector	54.95
J-1	1/2" to 1 1/2" bronze transition clamp	8.95
J-2	1 1/2" to 2 1/4" bronze transition clamp	12.95
IS-SPTL	Single phone line protector	57.95
CS112-25	25' 1 1/2" copper strap	25.95
CS112-50	50' 1 1/2" copper strap	51.95
CS112-75	75' 1 1/2" copper strap	75.95
CS112-100	100' 1 1/2" copper strap	100.95
CS3-25	25' 3" copper strap	51.95
CS3-50	50' 3" copper strap	100.95
CS3-75	75' 3" copper strap	150.95
CS3-100	100' 3" copper strap	197.95
CS6-25	25' 6" copper strap	100.95
CS6-50	50' 6" copper strap	197.95
CS6-75	75' 6" copper strap	299.95
CS6-100	100' 6" copper strap	391.95
CU-SP6P	Copper single point ground panel	69.95
TK-2	1 1/2" strap to Rohn twr corrosion free clamp	5.95
TK-3	1 1/2" strap-2 1/4" to 3 3/4" mast corr free clamp	8.95
1C-112S	#6-#1 wire to 1 1/2" strap clamp bond	10.95
58R-112S	1 1/2" strap to 3/8" gnd rod clamp bond	12.95
MSC-3	Junc; 2+ 1 1/2" or 3" strap clamp bond	10.95
UNI-KIT 2CT	Gnd kit; coax to alum/tin/galv	29.95
UNI-KIT 2TC	Gnd kit; galv twr leg to copper	32.95
UNI-KIT 2CC	Ground kit; coax to copper	28.95
CKK	Copper cleaning kit; 4 oz can, brush	27.95
GLEP	Lightning and EMP Protection book	22.95
<b>The POUCH (POU)</b>		
1R	Pouch for Yaesu VX-1R	\$ 12.95
5R	Pouch for Yaesu VX-5R	12.95
10R	Pouch for Yaesu FT-10/40/50R	14.95
508	Pouch for Icom Q7/Sta C-108A/508A	14.95
510	Pouch for Icom IC-T8A/Sta C-510A	14.95
AF-738	Pouch for Alinco DJ-C1T/C4T/C5T	12.95
ANALYPOUCH	Pouch for MFJ analyzer	24.95
DTX	Pouch for Kenwood TH-D7A	17.95
G-71	Pouch for Kenwood TH-G71A	17.95
P-4V	Pouch for UBZ-LF14 FRS	14.95
P-5	Pouch for HT	17.95
PR	Pouch for ADI PR-52/222	17.95
S-1	Short 1 Pouch for HT	17.95
S-2	Short 2 Pouch for HT	17.95
S-3	Short 3 Pouch for HT	17.95
Slim	Slim Pouch for HT	17.95
SS	Pouch for TH22AT/TH28A/FT51R&HP	17.95
T-2A	Pouch for HT	17.95
VX-3T	Pouch for Alinco DJ-180/280/480T	17.95
XF-1	Pouch for Yaesu VXF-1 FRS	14.95
Chest B/S	Chestpouch ser B w/S pocket	29.95
<b>PREMIER (PRE)</b>		
AL-800	2m/440 34" BNC rubber duck ant	\$ 34.95
RD-8	2m/440 6.5" BNC duck	17.95
RD-9	2m/440/900 7" BNC duck	18.95
RD-9SMA	2m/440/900 7" SMA duck	21.95
RD-78	2m/440 15" BNC whip	22.95
RD-98	2m/440 17" BNC whip	24.95
RD-98SMA	2m/440 17" SMA whip	27.95
PNC-4	2m/440 3/5.5db 40" fold mob	43.95
MC-2	Super suction & mag mt; NMO/UHF	37.95
TA-1/UHF	UHF-style trunk mt w/coax	28.95
TA-2	Hvy dty rubber coat tnk mt; NMO/UHF	34.95
DX-2/Lead	2m/440 450/300w dplx/lead	46.95
DX-2MN	2m/440 450/300w dplx/N	43.95
DX-2MNL	2m/440 450/300w dplx/lead/N	46.95
SB-752	12vdc 6.5A port batt power pack	59.95

## Reg Sale

## PREMIER - continued

TX-3	2m/440/900-1.2 800/800/200w triplexer	54.95
SPM-100	Spkr/mic; ADI/Icom/Yaesu	27.95
SPM-101	Speaker/mic for Kenwood	29.95
SPM-102	Speaker/mic; Yae FT-50/VX1/5R	33.95
SPM-200	Lapel mic/earph; ADI/Alilco/Yae	18.95
SPM-200E	Lapel mic/earhook; ADI/Alilco/Yae	21.95
SPM-201	Lapel mic/earphone for Kenwood	19.95
SPM-201E	Lapel mic/earhook for Kenwood	23.95
SPM-202	Lapel mic/earphone; FT-50/VX1/5R	20.95
SPM-202E	Lapel mic/earhook; FT-50/VX1/5R	24.95
SPM-300	Spkr/mic/lock/vol; ADI/Ico/Yae	34.95
SPM-301	Spkr/mic/PTT lock/volume; Ken	39.95
SPM-400	Boom/mic; ADI/Alinco/Icom/Yaesu	25.95
SPM-401	Boom/mic for Kenwood	27.95
SPM-402	Boom/mic; Yaesu FT-50R/VX1R/5R	29.95
SPM-500	Throat/mic/earph; ADI/Alilco/Yae	59.95
SPM-501	Throat/mic/earphone for Kenwood	61.95
SPM-502	Throat/mic/earphone; Yae FT-50/VX1/5R	62.95
SPM-600	Full sized spkr/mic; ADI/Alilco/Yae	39.95
SPM-601	Full sized spkr/mic for Kenwood	39.95
SPM-602	Full sized spkr/mic; FT50/VX1/5R	39.95
SPM-700	Palm mic w/earph; ADI/Alilco/Yae	29.95
SPM-701	Palm mic w/earphone for Kenwood	29.95
SPM-702	Palm mic w/earphone; FT50/VX1/5R	31.95
EH-1	Deluxe earphone w/earhook	15.95
<b>PRO AM by VALOR (VAL)</b>		
<b>VHF/UHF ANTENNAS ONLY (No Mounts)</b>		
M0144-440	2m/440 antenna	\$ 21.95
PAQA	136-515 MHz 1/4 wave antenna	8.95
PAQ-144	2m 1/4 wave antenna	8.95
PAQ-435	440 1/4 wave antenna	8.95
PAQ-3820	2m 1/4 wave whip w/ 1/4-24 thread	8.95
PHB-144	2m 1/4 wave 3 db antenna	31.95
PUB-440	440 5 db antenna	39.80
<b>MOUNTS ONLY FOR ABOVE ANTENNAS</b>		
PAM	Low profile magnet mount w/coax	\$ 28.95
PAMB	Black low profile mag mount w/coax	28.95
PAN38	3/8-24 antenna to NMO mt adapter	19.95
PAS	3/8" surface mount w/coax	20.95
PASMO	3/8" surface mt only (no coax)	7.95
PAS38	3/8" surface mount w/coax	20.95
PAS38MO	3/8" surface mt only (no coax)	7.95
PAT-2	No hole trunk mount w/coax	27.95
PAT-2B	Black no hole trunk mount w/coax	27.95
PAT-3	Swivel NMO-style trunk mt w/coax	35.95
<b>OTHER VHF/UHF ANTENNAS &amp; MOUNTS</b>		
77BNC	2m/440 12" 0/2.1db BNC rubber duck	\$ 23.95
144BNC	2m 12" 1/4 wave rubber duck w/BNC	11.95
220BNC	220 10" 1/4 wave rubber duck w/BNC	11.95
450BNC	440 6 1/2" 1/4 wv rubber duck w/BNC	11.95
BNC-SC	Suction cup extension; rubber ducks	22.95
WMSL-BNC	Window clip for rubber ducks	42.95
82BNC	Magnet mt for BNC w/coax	27.95
100ADN	SO-239 horizontal mirror mt	10.95
101ADN	HD alum mirror mt w/SO-239	10.95
105AD	Hvy dty 3/8" mount assembly	6.95
301	1/4-24 magnet mt only w/coax	25.95
401	Low profile 1/4-24 mag mt only w/coax	31.95
DAK	Mt for 2 vert ants or horizontal dipole	13.95
GM-100AD	SS GM 1/4-24 mirror mt w/SO-239	9.95
GM-144	2m 2.5db on glass antenna	44.95
GM-270	2m/440 2.6/6.3db on glass antenna	59.95
TMKD	On glass replacement mtg kit	8.95
MM-3401	Maxi-mag mt 1/4-24 kit (3-5" mags)	59.95
MM-3401B	Blk maxi-mag mt 1/4-24 kit (3-5" mags)	59.95
SS-100MOT	3-way NMO mirror mt w/coax	23.95
CX-144/CX-144B	2m 1/4 wave 3db 1/4-24 whip	17.95
MM-270B	2m/440 mini mag mt ant w/BNC	56.95
PA-144M	6m/2m 49" 0/3db mag mt ant	19.95
PA-220M	220 30" 3db mag mt ant	19.95
PA-270M	2m/440 19" 0/2.1db mag mt ant	19.95
PA-440M	440 22" 4db mag mt ant	19.95

## Reg Sale

## PRO AM (Valor) - continued

PAQM	144-450 MHz 1/4 wave BNC mag ant	28.95
PM-144-440BN	2m/440 BNC mag mt ant	33.95
TGS	30-1200MHz on-glass scanner ant	48.95
VAA-002BN	144-450 1/4 wv BNC mag ant	27.95
VAA-002B	144-450 black 1/4 wv mag mt ant	23.95
VAA-002BBN	144-450 black 1/4 wv BNC mag ant	27.95
120	Sawtooth hump mt for mobile radios	7.95
D-270	2m/440 100w duplexer	45.95
<b>MOBILE HF ANTENNAS (No Mounts)</b>		
AB-5	75/40/20/15/10m antenna	\$119.95
PHF-160	160m 8' 1/4-24 whip	97.95
PHF-75	75m 8' 1/4-24 whip (4' coil, 4' whip)	29.95
PHF-40	40m 8' 1/4-24 whip (4' coil, 4' whip)	23.95
PHF-30	30m 8' 1/4-24 whip (4' coil, 4' whip)	23.95
PHF-20	20m 8' 1/4-24 whip (4' coil, 4' whip)	23.95
PHF-17	17m 8' 1/4-24 whip (4' coil, 4' whip)	23.95
PHF-15	15m 8' 1/4-24 whip (4' coil, 4' whip)	23.95
PHF-12	12m 8' 1/4-24 whip (4' coil, 4' whip)	23.95
PHF-10	10m 8' 1/4-24 whip (4' coil, 4' whip)	23.95
PHF-6	6m 58" 1/4-24 whip	23.95
103S	Quick disconnect/5 twist lock connectors	24.95
<b>QSL Card Holders (ART)</b>		
QSL Card Holders	pack of 3, 20 cards/holder	\$ 12.95
<b>RF APPLICATIONS (RFA)</b>		
P-1500	1.8-30 MHz digital power/SWR meter	\$199.95
P-1500-P	Power supply for P-1500	16.95
P-2000A	1.8-30 MHz dig power/SWR meter	299.95
P-2000CW	1.8-30 MHz audible (CW) meter	249.95
P-3000	Deluxe 1.8-30MHz digital power/SWR	299.95
P-3000-P	Power supply for P-3000, etc.	12.95
Match Alert	VSWR monitor/alarm	129.95
<b>RF CONCEPTS (RFC)</b>		
144	2m FM mini-amp 2/30w amp	D \$119.95
144P	2m FM mini-amp 2/30w amp/preamp	139.95
VHF1-60	2m 1/60w FM HT amplifier	249.95
2-23	2m FM/SSB 2/30w amp/preamp	149.95
2/70	2m/440 FM 3/30/5/20w HT amp	259.95
UHF-50	440 3/50w FM HT type N amp	299.95
<b>RF INQUIRY (RFI)</b>		
CF250E-UHF	250w 1.8-70 common mode filter	\$ 89.95
CF5KV-UHF	5kw 1.8-70 common mode filter	124.95
<b>RF LIMITED (RFL)</b>		
HL-35NP	2m .5-5/20-35w amplifier	\$ 89.95
HL-35V	2m .5-5/20-35w amp/preamp	119.95
HL-36U	440 .5-12/30w amplifier	259.95
<b>RF PARTS (See Diamond)</b>		
<b>RF PRODUCTS (RFP)</b>		
199-416	BNC mag mt, 10' coax w/BNC	\$ 17.95
<b>RMS (RMS)</b>		
PA-546	2m 5/45w amplifier	\$129.99
W-450	140-170/430-470 150w meter	69.99
<b>RACOM (RCO)</b>		
700	Automatic morse code identifier	\$ 92.95
700-PC	Programming kit	30.95
<b>Radio Amateur Callbook (RAC)</b>		
059316	1999 World Radio TV Handbook	\$ 24.95
087573	Summer 1999 N America/Int CD callbook	49.95
<b>RADIO PUBLICATIONS</b>		
087034	All About Cubical Quad Antennas	\$ 13.95
087042	Beam Antenna Handbook	13.95
087050	All About VHF Amateur Radio	13.95
087069	Radio Amateur Antenna Handbook	13.95
087077	Simple, Low Cost Wire Antennas	13.95
087093	Interference Handbook	13.95
087107	All About Vertical Antennas	13.95



## Reg Sale

## SGC - continued

## Reg Sale

## SMILEY - continued

## Reg Sale

## RAMSEY (RAM)

AA-7 Active antenna kit	\$ 28.95
AF-1 Hi-Q CW audio filter kit	34.95
AR-1 Aircraft receiver kit	29.95
CS-1 Crystal radio set kit	19.95
CW-7 CMOS keyer kit	24.95
DF-1 Foxhound direction finder kit	59.95
DN-1 Nicad conditioner/fast charger kit	49.95
FM-1 300' FM broadcast transmitter kit	5.95
FM-4 Hi power FM broadcast transmitter kit	14.95
FR-1 FM broadcast receiver kit	24.95
HR-20 20m receiver kit	29.95
HR-40 40m receiver kit	29.95
HR-80 80m receiver kit	29.95
PR-10 2m preamp kit	17.95
QRP-20 20m CW transmitter kit	29.95
QRP-40 40m CW transmitter kit	29.95
QRP-80 80m CW transmitter kit	29.95
RFS-1 RF sensed switch kit	14.95
SCA-1 SCA decoder kit	27.95
SR-1 Shortwave receiver kit	29.95
TS-1 CW touch paddle switch kit	6.95
UT-5 Universal timer kit	8.95
VS-1 Voice activated switch kit	6.95
WA-10 BNC telescopic whip antenna	12.95

## RANGER (RAN)

LC-1000 Leather case; RCI-1000 VHF HT	Δ \$ 24.95	9 <sup>95</sup>
SRA-106A Speaker/mic; RCI-1000 VHF HT	Δ 44.95	19 <sup>95</sup>
SRA-107 Speaker/mic; RCI-1000 VHF HT	Δ 44.95	24 <sup>95</sup>

## ROHN TOWERS (ROH)

HBX-40/BXB-6 40' twr/base stubs, 10 sq ft *T	\$544.50	490 <sup>95</sup>
HBX-48/BXB-7 48' twr/base stubs, 10 sq ft *T	726.60	653 <sup>95</sup>
HBX-56/BXB-8 56' twr/base stubs, 10 sq ft *T	911.30	820 <sup>95</sup>
HDBX-40/BXB-7 40' twr/base stubs, 18 sq ft *T	680.60	612 <sup>95</sup>
HDBX-48/BXB-8 48' twr/base stubs, 18 sq ft *T	907.30	816 <sup>95</sup>

### \*Drop-shipped from factory

On factory drop-shippings we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB the Rohn factory, which has various locations, via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these drop-shipped towers. Most truck lines will not unload the tower for you, so please be sure to have enough manpower and/or equipment on hand when your tower is delivered by the carrier.

Note: Rohn states that "antennas developing a large twisting moment due to wind must not be used on HBX/HDBX-series towers. Antennas should be limited to those having a maximum boom length of 10 ft.

### Other Rohn Towers available on Special Order

## ROSETTA (ROS)

WINRADIO .5M-1.3G Rcv card/soft/cell blkd	Δ \$699.95	369 <sup>95</sup>
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## SGC (SGC)

04-01 SG-2000 150w 1.8-30 MHz 12v Xcvr	1695.00	1329 <sup>95</sup>
04-06 SG-2000 Slim Pack Xcvr (no head)	1595.00	1339 <sup>95</sup>
04-11 Std SG-2000 rem head/bkt/20' cable	695.00	589 <sup>95</sup>
04-15 Remote mobile head/mem ch's only	495.00	399 <sup>95</sup>
51-82 Fan kit for continuous duty xmit	300.00	269 <sup>95</sup>
04-10 SG-2000 Xcvr w/DSP/PowerTalk head	1995.00	1679 <sup>95</sup>
04-23 SG-2000 Xcvr/DSP/PowerTalk remotd	2295.00	1899 <sup>95</sup>
04-12 Remote kit w/swivel bkt & cable	200.00	179 <sup>95</sup>
04-13 Remote kit w/5-way mount & cable	350.00	319 <sup>95</sup>
04-14 Rem kit w/suction cup mt & cable	495.00	449 <sup>95</sup>
04-22 PowerTalk remote head	1095.00	799 <sup>95</sup>
52-31 Waterproof military handset	375.00	339 <sup>95</sup>
52-32 Carbon telephone handset	190.00	174 <sup>95</sup>
52-33 Dynamic telephone handset	190.00	139 <sup>95</sup>
52-34 RS-232 interface; SG-2000 Xcvr	195.00	179 <sup>95</sup>
52-47 Shock/military mounting tray	300.00	269 <sup>95</sup>
52-51 CA-1 High voltage feed wire .per ft.	79¢	
52-52 CA-2 RG-58 coax cable .per ft.	99¢	

52-53 CA-230 Ant coupler cable .per ft.	4.95	
52-54 CA-2000 Remote head cable .per ft.	4.95	
53-04 PS-30 30A/40A peak unreg ps	425.00	399 <sup>95</sup>
53-05 PS-50 50A/70A peak unreg ps	459.50	419 <sup>95</sup>
52-61 PSC/12-1 12' ps cable, 1 plug	50.95	
52-62 PSC/12-2 12' ps cable, 2 plugs	60.95	
05-01 SG-2020 Mini 20w PEP QRP Xcvr/mic	675.95	
52-96 SG-500 1.8-24MHz 12v 500w PEP amp	1195.00	999 <sup>95</sup>
51-82 Fan kit for continuous duty xmit	300.00	269 <sup>95</sup>
56-40 SG-7200 DSP HF Smartmodem/Emailer	695.95	
70-07 PowerClear add-on DSP unit	395.00	359 <sup>95</sup>
54-12 SG-230 200w 1.8-30 MHz 12v Smartuner	595.00	489 <sup>95</sup>
54-61 25' extension cable	60.95	
54-62 50' extension cable	90.95	
54-63 SmartLock; tuners made after 9/1/93	59.95	
54-15 SG-235 500w 1.8-30MHz 12v Smartuner	1595.00	1169 <sup>95</sup>
54-16 SmartPro 200w 1.6-30MHz 12v tuner	995.00	599 <sup>95</sup>
54-17 SG-231 HF+6m 12v Smartuner	595.00	529 <sup>95</sup>
54-18 SG-237 100w PEP HF+6m mini Smartuner	295.95	
55-04 SG-103 1.8-30MHz 150w dipole	249.50	229 <sup>95</sup>
55-06 SG-104 2-28 MHz 90' 1kw dipole	700.00	629 <sup>95</sup>
55-27 SG-303 1.8-30 9' mobile whip & mt	495.00	449 <sup>95</sup>
55-67 Replacement whip for SG-303	225.00	199 <sup>95</sup>
55-28 SG-307 1.8-60 7' mobile whip & mt	345.00	319 <sup>95</sup>
55-46 QMS-1 Quick mt system w/SG230 ...D	1085.00	699 <sup>95</sup>
55-47 QMS-2 Quick mt sys w/SG-230/303 whip	1580.00	895 <sup>95</sup>
55-48 QMS-3 500w antenna system	2580.00	2169 <sup>95</sup>
55-49 QMS-7 Quick mt sys w/SG-231/307 whip	1430.00	1299 <sup>95</sup>
56-15 External ARQ/FEC system	1200.00	1069 <sup>95</sup>

## SANGANE (SAN)

ATS-303 AM/FM/shortwave portable receiver	\$119.00	89 <sup>95</sup>
ATS-404 AM/FM/SW portable receiver w/case	139.95	99 <sup>95</sup>
ATS-606A AM/FM/shortwave portable receiver	249.00	169 <sup>95</sup>
ATS-818 AM/FM/shortwave portable receiver	299.00	179 <sup>95</sup>
ATS-818CS AM/FM/SW port Rcvr w/cassette	359.00	229 <sup>95</sup>
ATS-909 AM/FM/shortwave portable receiver	389.00	279 <sup>95</sup>
DT-200V AM/FM/VHF TV sound dig port Rcvr	79.95	
SR-77 AM/FM micro sized receiver	34.95	

## SEQUOIA (SEQ)

POCKET PC REF Pocket PC reference book	\$ 14.95	
POCKET REF Pocket reference book	9.95	

## SHAKESPEARE (SHA)

420-M-2 3 db, 5' mast mt ant w/coax	Δ \$119.50	29 <sup>95</sup>
4008-4 4' extension w/1.5" chr fittings	Δ 93.50	29 <sup>95</sup>
5204-8 Combo CB/VHF marine 8' ant	Δ 192.50	49 <sup>95</sup>
5220 8' Galaxy Loran C whip	Δ 38.95	14 <sup>95</sup>
5221 8' black Galaxy Loran C whip	Δ 38.95	14 <sup>95</sup>
5228 8' Galaxy ext mast/1.5" chr fittings	Δ 143.50	49 <sup>95</sup>
5240 3' low prof power boat marine ant	Δ 64.95	24 <sup>95</sup>
5302 8' VHF marine/Loran combo ant	Δ 169.95	59 <sup>95</sup>
396-1 3 db, 5' VHF marine ant, less mount	107.50	59 <sup>95</sup>
497 6 db, 8' VHF marine ant, less mount	89.50	49 <sup>95</sup>
5202 6db VHF mar ant/chrome ferrule, less mt	133.95	69 <sup>95</sup>
5206-C Econo 8' VHF mar ant/chrome ferrule, no mt	56.95	39 <sup>95</sup>
366H Chrome zamac ratchet mount	37.95	29 <sup>95</sup>
495 White plastic lift & lay mount	23.50	16 <sup>95</sup>
420 3db, 5' VHF marine ant w/fold-down mt	98.50	59 <sup>95</sup>

## SHURE (SHU)

526T Series II Dynamic amplified desk mic	\$154.80	119 <sup>95</sup>
R96 Replacement cartridge	26.95	

## SMILEY ANTENNA (SMI)

270A 2m/440 gain telescopic whip	\$ 19.95	
270A/SMA 2m/440 gain tele whip w/SMA	19.95	
5/8 SLD-2 2m ½ Slim Duck rubber ant	17.95	
5/8 SLD-220 220 ½ Slim Duck rubber ant	17.95	
5/8 SLD-440 440 ½ Slim Duck rubber ant	17.95	
5/8 SLD-2 Combo 2m ½ duck & stubby ant	24.95	
5/8 SLD-220 Combo 220 ½ duck & stubby ant	24.95	
5/8 SLD-440 Combo 440 ½ duck & stubby ant	24.95	
FLX 1/2 WAV-2M ½ wv 2m BNC whip/flex coil	25.95	

RD-2 2m rubber duck antenna	14.95	
RD-220 220 rubber duck antenna	14.95	
RDM-2 2m mini rubber duck antenna	14.95	
RDM-220 220 mini rubber duck antenna	14.95	
RDM-440 440 mini rubber duck antenna	14.95	
RDS-2 2m stubby rubber duck antenna	14.95	
RDS-220 220 stubby rubber duck antenna	14.95	
RDS-440 440 stubby rubber duck antenna	14.95	
SD-2 2m Slim Duck thin rubber antenna	14.95	
SD-220 220 Slim Duck thin rubber antenna	14.95	
SL-440 440 slimline type duck	12.95	
SS-II Super Stick 2m ¾ wv telescopic ant	19.95	
SS-III Super Stick 220 ¾ wv telescopic ant	19.95	
SS-IV Super Stick 440 ¾ wv telescopic ant	19.95	
SS-II/Combo 2m ¾ wv telescopic & stubby ant	26.95	
SS-III/Combo 220 ¾ wv telescopic & stubby ant	26.95	
SS-IV/Combo 440 ¾ wv telescopic & stubby ant	26.95	
TAQ-2 2m ¼ wave stainless whip	10.95	
TAQ-220 220 ¼ wave stainless whip	10.95	
TAQ-440 440 ¼ wave stainless whip	10.95	
TS Thin Stick 2m/220 ¾ wave telescopic whip	16.95	

## SOLARCON (SOL)

A-99 10m fiberglass base station antenna	\$ 74.95	64 <sup>95</sup>
GPK-1 Ground plane radial kit	39.95	

## SOLDER-IT (SLD)

ALP-21D Alum solder paste, 7.1gm	Δ \$ 6.00	99¢
SP-7D Solder paste, 7.1 gm	Δ 6.95	1 <sup>95</sup>

## SONY (SON)

RFU-W100 RF adaptor for WebTV	Δ \$ 49.95	9 <sup>95</sup>
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## SHORTWAVE/SCANNERS

ICF-2010 AM/FM/SW/LW/air port Rcvr w/ps	Δ \$449.95	359 <sup>95</sup>
ICF-SW07 AM/FM/SW micro Rcvr w/ps	529.95	399 <sup>95</sup>
ICF-SW10 AM/FM/SW compact receiver	59.95	49 <sup>95</sup>
ICF-SW12 AM/FM/SW travel Rcvr w/world clock	129.95	99 <sup>95</sup>
ICF-SW30 AM/FM/SW portable receiver	129.95	99 <sup>95</sup>
ICF-SW40 AM/FM/SW port receiver	149.95	129 <sup>95</sup>
ICF-SW77 AM/FM/SW portable receiver	Δ 649.95	469 <sup>95</sup>
ICF-SW100S AM/FM/SW portable receiver	479.95	349 <sup>95</sup>
ICF-SW1000T AM/FM/SW port Rcvr w/cassette	599.95	499 <sup>95</sup>
ICF-SW1000TS AM/FM/SW port Rcvr/tape/AN-LP1	649.95	549 <sup>95</sup>
ICF-SW7600G AM/FM/SW portable receiver	199.95	179 <sup>95</sup>
ICF-SW7600GS AM/FM/SW port Rcvr/ANLP1 D	279.95	249 <sup>95</sup>
AC-E60HG 6vdc 400ma AC adapter	22.99	
AN-1 LW/MW/SW outdoor active rcv ant	119.95	99 <sup>95</sup>
AN-3 Aircraft active receive ant	Δ 99.95	39 <sup>95</sup>
AN-102 LW/MW/SW indoor active rcv ant	89.95	79 <sup>95</sup>
AN-LP1 Folding active loop ant w/case	Δ 99.95	89 <sup>95</sup>
ICF-SC1 300 ch pocket scanner	329.95	269 <sup>95</sup>
ICF-SC13P 300ch pock scanner/PC interface	429.95	349 <sup>95</sup>
AC-E60HG 6vdc 400ma AC adapter	22.99	
DCC-E260 Mobile DC adapter	19.99	
ICF-B200 AM/FM emergency radio/light/alarm	Δ 129.95	79 <sup>95</sup>

## STANDARD (STA)

CAW-151B 12vdc ps cable; C156A	Δ \$ 18.95	12 <sup>95</sup>
CHP-111 Headset mic/PTT switch; 156A	Δ 48.95	34 <sup>95</sup>
CHP-150 Headset mic w/VOX; C156A	Δ 87.95	49 <sup>95</sup>
CLC-157 Soft case; CNB-157; C156A	Δ 23.95	14 <sup>95</sup>
CLC-158 Leather case; CNB155/156; 156A	Δ 24.95	14 <sup>95</sup>
CMB-112 Mounting bracket; C156A	Δ 27.95	14 <sup>95</sup>
CMP-115 Mini speaker/mic; C156A	Δ 53.95	39 <sup>95</sup>
CNB-155 4.8v 600ma 2.5w nicad; 156A	Δ 30.95	14 <sup>95</sup>
CNB-156 6v 600ma 2.5w nicad; 156A	Δ 33.95	19 <sup>95</sup>
CWC-156A Cgr; CNB155/156/157/158; 156A	Δ 9.95	4 <sup>95</sup>
C-558A 2m/440 HT/batt/cgr/TT/ctcss	Δ 665.00	469 <sup>95</sup>
CAX-02 Bottom cover; 558A	Δ 12.95	6 <sup>95</sup>
CAX-03 Bottom cover; 558A	Δ 12.95	6 <sup>95</sup>
CAW-150 Mobile power supply cable; 558A	Δ 18.95	9 <sup>95</sup>
CBT-175 2 cell battery case; 558A	Δ 17.00	2 <sup>95</sup>
CLC-152 Lrg case; C158A/CNB152/153	Δ 26.00	9 <sup>95</sup>
CLC-171 Soft case for CNB-171	Δ 30.95	14 <sup>95</sup>
CLC-172 Soft case for CNB-172/173	Δ 30.95	14 <sup>95</sup>



# PRICE GUIDE

## STANDARD - continued

	Reg	Sale
CLC-175 Soft case for CBT-175 .....	30.95	14 <sup>95</sup>
CLC-521 Large carry case; 228A/528A .....	29.95	14 <sup>95</sup>
CLC-552 Leather case; 528A/558A .....	34.95	19 <sup>95</sup>
CLC-555OR Orange carrying case .....	35.95	19 <sup>95</sup>
CLC-560 Case; CBT171/CN-171; 568A .....	27.95	14 <sup>95</sup>
CLC-562 Leather case; CBT171/CNB171 .....	52.95	29 <sup>95</sup>
CMB-111 Mobile bracket .....	22.95	14 <sup>95</sup>
CMP-123 Ear phone spkr/mic .....	63.95	44 <sup>95</sup>
CNB-160 Mini 6v 300ma nicad batt .....	99.95	69 <sup>95</sup>
CWC-151A Charger; 12v batteries .....	28.00	14 <sup>95</sup>
CNB-153 7.2v 1000ma nicad batt .....	72.00	19 <sup>95</sup>
<b>C-108A</b> 200mw 2m FM HT .....	269.00	169 <sup>95</sup>
<b>C-508A</b> 280mw 2m/440 FM HT .....	345.00	229 <sup>95</sup>
CLC-401 Standard soft case; 108A .....	16.95	9 <sup>95</sup>
CLC-502 Standard soft case; 508A .....	18.95	14 <sup>95</sup>
CLC-503 Dlx soft case; 108A/508A .....	19.95	9 <sup>95</sup>
CNB-401 Nicad battery .....	22.95	14 <sup>95</sup>
CMP-127 Microphone for C-510A .....	69.95	29 <sup>95</sup>
CNB-510 3.6v 700ma nicad; C-510A .....	33.95	19 <sup>95</sup>
CSA-510A Rapid desk cgr; C-510A .....	89.95	49 <sup>95</sup>
<b>C-178A</b> 2m/440 FM mini HT/TTP .....	459.00	329 <sup>95</sup>
CAW-570 Split cable for mic; C5718DA .....	63.95	39 <sup>95</sup>
CAW-574 13' fnt panel extension cbl; 5718DA .....	39.95	19 <sup>95</sup>
CAW-579 Packet cable; C5718DA .....	32.95	19 <sup>95</sup>
CSK-15 External speaker .....	47.95	29 <sup>95</sup>
CTN-5600 Encoder/decoder; C-5608DA .....	86.00	49 <sup>95</sup>

## STARTEK (STR)

ATH-15 1-1500MHz bar graph freq counter ..	\$235.00	189 <sup>95</sup>
ATH-30 1-2800MHz bar graph ctr w/1-shot ..	299.00	249 <sup>95</sup>
ATH-30/HS 2800MHz/1-shot/hi-stability .....	424.00	349 <sup>95</sup>
ATH-50 5Hz-2800MHz bar/auto trig/hi speed ..	339.00	299 <sup>95</sup>
ATH-50/HS 2800MHz/trig/hi spd/hi stability ..	464.00	399 <sup>95</sup>
APA-9/VPA-9 9vdc auto power adapter .....	7.95	
RD-2750 27-50MHz rubber duck antenna .....	19.95	
RD-150 150MHz rubber duck ant .....	16.95	12 <sup>95</sup>
RD-450 450MHz rubber duck ant .....	16.95	12 <sup>95</sup>
RD-800 800MHz rubber duck antenna .....	16.95	
TA-90 Telescopic antenna .....	12.95	
TA-90L Right angle telescopic antenna .....	16.95	
DC-5 BNC to clip leads cable .....	12.95	9 <sup>95</sup>
M-207-IC Interface cable .....	10.95	6 <sup>95</sup>
CC-90 Carrying case .....	12.95	
BP-150 130 - 500 MHz bandpass filter .....	49.95	
HP-400 400 - 1500 MHz bandpass filter .....	49.95	
HP-800 800 MHz - 2 GHz bandpass filter ..	49.95	
LP-60 DC - 60 MHz bandpass filter .....	49.95	
DC-10 Direct probe .....	22.95	16 <sup>95</sup>
LP-22 Lo-pass probe .....	29.95	14 <sup>95</sup>
P-60 Probe, 60MHz scope, 200MHz FC .....	29.95	14 <sup>95</sup>
P-100 Probe, 100MHz scope, 300MHz FC .....	39.95	19 <sup>95</sup>
P-110 Probe, 200MHz scope, 500 MHz FC ..	69.00	49 <sup>95</sup>
CAM-PHA-AES B&W pinhole TV camera/mic/ps ..	99.95	

## SVETLANA (SVE)

4CX250B/7203 Tube .....	special order	\$105.95
4CX400A Tube .....	special order	140.95
4CX800A Tube .....	special order	190.95
572B Tube .....		86.95
811A Tube .....		25.95
8874/3CX400A7 Tube .....	special order	335.95

Other Tubes Available on Special Order

## TAB Books (TAB)

641351 SW Radio Listening for Beginners .....	\$ 19.95	12 <sup>95</sup>
643478 Complete SW Listener's HB .....	29.95	14 <sup>95</sup>
643540 Beginner's HB of Ham Radio .....	24.95	14 <sup>95</sup>
765340 Build Your Own SW Antennas .....	16.95	6 <sup>95</sup>

## Texas Bugcatcher (TEX)

BG-1500-6 80-10m+6m 90" mobile ant .....	\$165.95	
CC-4 Package of 4 coil clips .....	3.95	
MM-1 Inductive mobile matcher .....	19.95	

## Reg Sale

## TIMEWAVE/AEA

TIMEWAVE (TIM)

DSP-9 PLUS Advanced dig sig proc unit .....	\$209.95	
DSP-59 PLUS Dlx dig signal proc unit .....	269.95	
DSP-599zx All-mode DSP noise filter .....	399.95	
(AEA) AC-4 12vdc 1.5A ps .....	19.95	
DSP-RTTY RTTY prog; DSP-599zx/59Y .....	69.95	

## TIMEWAVE/AEA DATA/SOFTWARE (AEA)

DC-1 Cigarette lighter cord .....	\$ 7.95	2 <sup>95</sup>
KK-1 Keyboard keyer for IBM PC .....	199.95	149 <sup>95</sup>
PK-12 1200 bps VHF/UHF pkt controller .....	99.95	
100K/PK-12 100K mail upgrade; PK12 .....	39.95	19 <sup>95</sup>
AC-1 12vdc 600 ma adaptor .....	15.95	
PK-96/18K 9600 baud packet/32K RAM .....	169.95	
100K 100K mem upgrade; PK-96 .....	39.95	
PK-96/100K 9600 baud control/128K RAM .....	199.95	
AC-1 12vdc 600 ma adaptor .....	15.95	
PC Pakratt Lite Packet only term prog .....	49.95	19 <sup>95</sup>
9600 bps modem card option; PK-900 .....	75.95	49 <sup>95</sup>
ACARS/900 Air data receive soft; PK-900 .....	50.95	39 <sup>95</sup>
AEA-FAX III-900 PK900/IBM FAX software .....	129.95	59 <sup>95</sup>
PC-Pakratt II w/FAX Prog; 12/88/232 .....	69.95	59 <sup>95</sup>
PC-Pakratt for Win 2.0 IBM; 12/88/232 .....	79.95	
IH CABLE PK-232 - Ico/Yae/Alti HT cable .....	25.95	9 <sup>95</sup>
IM CABLE PK232 - Ico 8pin mic cable .....	25.95	14 <sup>95</sup>
IW CABLE PK232 - Icom W2A cable .....	25.00	4 <sup>95</sup>
KH CABLE PK-232 - Ken HT cable .....	25.95	9 <sup>95</sup>
YM CABLE PK-232 - Yae 8pin mic cable .....	25.95	14 <sup>95</sup>
WeFax-256 WX FAX program; 1232/2232 .....	129.95	119 <sup>95</sup>
AA.COM SWR curve IBM soft; 121 & V/U .....	75.00	29 <sup>95</sup>
DM-1 2m/220/440 FM deviation meter .....	169.95	
IDR-96 5w 441.05MHz data Xcvr/9600 .....	499.95	329 <sup>95</sup>
Morse University II Morse code Windows soft ..	39.95	

## TRIPP LITE (TRI)

PR-7 5A power supply, 7A surge .....	\$ 55.00	49 <sup>95</sup>
PR-10 7.5A power supply, 10A surge .....	79.00	69 <sup>95</sup>
PR-12 9A power supply, 12A surge .....	85.00	74 <sup>95</sup>
PR-20 16A power supply, 20A surge .....	125.00	99 <sup>95</sup>
PR-30 24A power supply, 30A surge .....	172.00	129 <sup>95</sup>
PR-40 32A power supply, 40A surge .....	211.00	169 <sup>95</sup>
PR-50 37A power supply, 50A surge .....	262.00	199 <sup>95</sup>
PR-60 48A power supply, 60A surge .....	309.00	239 <sup>95</sup>
PV-140 140w solid state 12vdc-115vac inverter ..	61.25	49 <sup>95</sup>
PV-300 300w solid state 12vdc-115vac inverter ..	89.95	74 <sup>95</sup>
TL-11 Trim Line small low prof 8A ps .....	85.00	39 <sup>95</sup>
TLC-11 Trim Line large low prof 8A ps .....	97.00	39 <sup>95</sup>
IBAR-12 Rack mt 12-out surge suppress .....	169.00	59 <sup>95</sup>
ISOBAR-4 4 outlet premium surge suppressor ..	79.95	49 <sup>95</sup>
ISOBAR-6 6 outlet premium surge suppressor ..	99.95	59 <sup>95</sup>
ISOBAR-8 ULTRA 8 outlet surge suppressor/LEDs ..	116.95	79 <sup>95</sup>
MT-6+ 6 outlet console surge suppressor .....	149.95	99 <sup>95</sup>
SUPER-7 7 outlet surge suppressor .....	27.95	19 <sup>95</sup>
SUPER-7+TEL 7 outlet/fax modem surge .....	38.95	29 <sup>95</sup>
TR-6 Surge Alert 6 out super suppressor .....	59.95	19 <sup>95</sup>
TR-6FM Surge Alert+Tel 6 out super suppressor ..	69.95	49 <sup>95</sup>

## TUBES (TUB)

6146W Tube .....	\$ 26.95	
12BY7A Tube .....	12.95	
3-500G High dissipation tube (3-500Z) .....	119.95	
3-500Z .....	229.95	
572B Tube .....	49.95	
811A Tube .....	19.95	

Also see SVETLANA

## TUNE BELT (TUN)

HH-1PS Up to 5" HT radio belt .....	\$ 19.95	6 <sup>95</sup>
HH-1PM Up to 6" HT radio belt .....	19.95	6 <sup>95</sup>
HH-1PL Up to 7" HT radio belt .....	19.95	6 <sup>95</sup>
HH-2PM To 6" HT radio belt/batt pocket .....	21.95	6 <sup>95</sup>
HH-2PL To 8" HT radio belt/batt pocket .....	21.95	9 <sup>95</sup>

## Reg Sale

## US TOWER (UST)

FREE STANDING CRANK-UPS (T'X not recommended)

TX-438 38' crank-up tower .....	T 1269.00	1142 <sup>95</sup>
TX-455 55' crank-up tower .....	T 1915.00	1399 <sup>95</sup>
TX-472 72' crank-up tower .....	T 3147.00	2832 <sup>95</sup>
TX-472MDP 72' crank-up w/motor drive .....	T 5064.00	3899 <sup>95</sup>
TX-489 89' crank-up tower .....	T 5475.00	4927 <sup>95</sup>
TX-489MDPL 89' crank-up w/motor drive .....	T 8212.00	7390 <sup>95</sup>
TX-3106MDPLSP 106' crank-up/mot drive .....	T 12999.00	11699 <sup>95</sup>

## FREE STANDING HEAVY DUTY CRANK-UP TOWERS

HDX-538 38' crank-up tower .....	T 1642.00	1477 <sup>95</sup>
HDX-555 55' crank-up tower .....	T 2874.00	2099 <sup>95</sup>
HDX-572 72' crank-up tower .....	T 4927.00	4434 <sup>95</sup>
HDX-572MDPL 72' crank-up w/motor drive .....	T 7528.00	6775 <sup>95</sup>
HDX-589MDPL 89' crank-up w/motor drive .....	T 9855.00	8869 <sup>95</sup>
HDX-689MDPL 89' HD crank-up w/motor .....	T 19039.00	17135 <sup>95</sup>
HDX-5106MDPL 106' HD crank-up w/motor T ..	20719.00	18647 <sup>95</sup>

## COMPACT TMM (Top mount rotor for full retraction)

TMM-433SS 33' crank-up tower .....	T 1355.00	1219 <sup>95</sup>
TMM-433HD 33' HD crank-up tower .....	T 1642.00	1477 <sup>95</sup>
TMM-541SS 41' crank-up tower .....	T 1779.00	1599 <sup>95</sup>

## ACCESSORIES FOR CRANK-UP TOWERS

CX-2 Coax arms (2) for 2-section tower .....	\$ 55.95	
CX-3 Coax arms (3) for 3-section tower .....	77.95	
CX-4 Coax arms (4) for 4-section tower .....	122.95	
CX-5 Coax arms (5) for 5-section tower .....	167.00	150 <sup>95</sup>
CX-6 Coax arms (6) for 6-section tower .....	212.00	190 <sup>95</sup>
HDS Service platform .....	904.00	813 <sup>95</sup>
STD-3 Rotor accessory for TX/TMM towers .....	235.00	211 <sup>95</sup>
IV-16 Inverted vee arm for MA's .....	41.95	
M-5 2" OD 5' mast extension for MA's .....	40.95	
M-10 2" OD 10' mast .....	77.95	
M-15 2" OD 15' mast .....	115.95	
M-20 2" OD 20' mast .....	152.00	136 <sup>95</sup>
M-15R 2" OD 15' reinforced mast .....	174.00	156 <sup>95</sup>
M-20R 2" OD 20' reinforced mast .....	230.00	207 <sup>95</sup>
MD-75 Heavy duty 1 HP motor drive .....	T 1108.00	997 <sup>95</sup>
MDP-750* Pull-down drive; TX-472/HDX-555 T ..	1724.00	1551 <sup>95</sup>
MDPL-1000* Pull-down drive; HDX-572 .....	T 2340.00	2106 <sup>95</sup>

\*Requires MCL-100 or RMC-1000 also

MRF Mast raising fixture .....	298.00	268 <sup>95</sup>
MCL-100 Limit switch package .....	517.00	465 <sup>95</sup>
RMC-1000 Remote control w/limit switch .....	1108.00	997 <sup>95</sup>
RP-3 Rotor plate for 10" section .....	39.95	
RP-4 Rotor plate for 12 1/2" section .....	47.95	
RP-5 Rotor plate for 15" section .....	52.95	
TRX-80 Raising fixture; TX-438/455; HDX-538/555 T ..	483.00	434 <sup>95</sup>
TRX-80HD Raising fixture; TX-472/489; HDX-572/589 T ..	635.00	571 <sup>95</sup>
TRX-100HD Raising fixture; HDX-689/5106 T .....	895.00	805 <sup>95</sup>
TB-2US Thrust bearing; 2" mast w/2 flange holes ..	110.95	

## MA-SERIES TUBULAR TOWERS

MA-40 40' crank-up mast .....	T 1007.00	679 <sup>95</sup>
MA-550 55' crank-up mast .....	T 1704.00	1069 <sup>95</sup>
MA-550MDP 55' crank-up mast w/motor .....	T 3258.00	2932 <sup>95</sup>
MA-770 70' crank-up mast .....	T 2810.00	2529 <sup>95</sup>
MA-770MDP 70' crank-up mast w/motor .....	T 4445.00	3999 <sup>95</sup>
MA-850 85' crank-up mast .....	T 4344.00	3909 <sup>95</sup>
MA-850MDP 85' crank-up mast w/motor .....	T 5991.00	5391 <sup>95</sup>

## MA-SERIES ACCESSORIES

CX-2M Coax arms (2) for MA-40 .....	\$ 59.95	
CX-3M Coax arms (3) for MA-550 .....	88.95	
CX-4M Coax arms (4) for MA-770 .....	148.00	133 <sup>95</sup>
CX-5M Coax arms (5) for MA-850 .....	178.00	160 <sup>95</sup>
MAB-40 Hinged base for MA-40 .....	T 402.00	361 <sup>95</sup>
MAB-550 Hinged base for MA-550 .....	T 480.00	432 <sup>95</sup>
MAB-770 Hinged base for MA-770 .....	T 581.00	522 <sup>95</sup>
MAB-850 Hinged base for MA-850 .....	T 704.00	633 <sup>95</sup>
MAF-40 Raising fixture for MA-40 .....	246.00	221 <sup>95</sup>
MAF-550 Raising fixture for MA-550 .....	T 340.00	306 <sup>95</sup>
MAF-770 Raising fixture for MA-770 .....	T 346.00	311 <sup>95</sup>



## US TOWER - continued

	Reg	Sale
MAF-850 Raising fixture for MA-850 .....	458.00	412 <sup>95</sup>
MARB-40 Rotor base accessory for MA-40 ..	615.00	553 <sup>95</sup>
MARB-550 Rotor base accessory for MA-550 T	727.00	654 <sup>95</sup>
MARB-770 Rotor base accessory for MA-770 T	861.00	774 <sup>95</sup>
MARB-850 Rotor base accessory for MA-850 T	1018.00	916 <sup>95</sup>
All US TOWER products are drop-shipped (shipped direct to you from the US TOWER factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Visalia, California via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order products. Most truck lines will not unload the tower for you, so please be sure to have enough manpower and/or equipment on hand when your tower is delivered by the carrier.		

## UNADILLA (See W2AU)

## UNIDEN (UNI)

CT-301 Cordless phone .....	\$ 69.95	24 <sup>95</sup>
DX-3555 25 ch scrambled dual pad .....	159.95	49 <sup>95</sup>
XC-3510 25 ch cordless phone .....	109.95	29 <sup>95</sup>
EHD-1200GB 900MHz Harley black cordless ..	149.95	99 <sup>95</sup>
EXA-7950 900MHz cordless ph/dig ans mach	169.95	89 <sup>95</sup>
EXP-7902 900MHz cordless phone .....	89.95	59 <sup>95</sup>
EXS-9110 900MHz spread spec cordless .....	179.95	99 <sup>95</sup>
PC-66XL AM Mobile CB .....	129.95	79 <sup>95</sup>
PC-76XL AM Mobile CB .....	179.95	99 <sup>95</sup>
PC-76XLW AM Mobile CB w/WX alert .....	189.95	119 <sup>95</sup>
PRO-340XL 40 ch port CB/rubber ant .....	89.95	49 <sup>95</sup>
PRO-350XL 40 ch handheld CB .....	169.95	89 <sup>95</sup>
PRO-501AXL AM Mobile CB w/mag ant .....	69.95	39 <sup>95</sup>
Grant-XL SSB/AM Mobile CB .....	259.95	159 <sup>95</sup>
PC-68LTW AM Mobile CB w/WX alert .....	159.95	99 <sup>95</sup>
PC-68XL AM Mobile CB .....	139.95	89 <sup>95</sup>
PC-68LTW AM Mobile CB w/WX alert .....	197.95	129 <sup>95</sup>
PC-78XL AM Mobile CB .....	189.95	109 <sup>95</sup>
PRO-501XL AM Mobile CB .....	49.95	39 <sup>95</sup>
PRO-510XL AM Mobile CB .....	69.95	44 <sup>95</sup>
PRO-510AXL AM Mobile CB w/mag mt ant ...	69.95	44 <sup>95</sup>
PRO-520XL AM Mobile CB .....	89.95	59 <sup>95</sup>
PRO-538W AM Mobile CB w/WX .....	109.95	69 <sup>95</sup>
PC-122XL SSB/AM Mobile CB .....	199.95	109 <sup>95</sup>
Grant-LT SSB/AM Mobile CB .....	279.95	169 <sup>95</sup>
Washington SSB/AM Base CB .....	349.95	229 <sup>95</sup>
ESP-26 External speaker .....	16.95	

## UNIDEN BEARCAT

BC-148XLT-1 20 ch prog scanner/WX alert .D	\$179.95	99 <sup>95</sup>
BCT-2 Pre-prog warning scan/AC ps .....	239.50	89 <sup>95</sup>
BCT-10 Pre-prog hiway info scan .....	369.99	119 <sup>95</sup>
BC-147XLT-1 16 ch prog scanner/instant WX ..	169.95	99 <sup>95</sup>
BC-178XLT 100 ch prog scan/air/WX alert ....	229.95	139 <sup>95</sup>
BC-244CLT 30 ch scanner w/instant WX .....	159.95	99 <sup>95</sup>
BC-248CLT 50 ch scanner w/WX alert .....	179.95	109 <sup>95</sup>
BC-278CLT 100 ch scanner/SAME WX alert ..	299.95	189 <sup>95</sup>
BC-350A 50 ch prog/service search w/AC ps	199.95	119 <sup>95</sup>
BCT-7 Pre-prog warning scan/air/800/AC ps	319.95	179 <sup>95</sup>
BCT-12 Pre-prog mobile warning scanner ....	299.95	179 <sup>95</sup>
BC-760XLT 100 ch prog/svc search/800/AC ps	369.95	219 <sup>95</sup>
BC-002 CTCSS tone board; BC-760XLT .....	51.95	
BC-003 Switch box for BC-002 .....	10.95	
BC-004 RF preamp for BC-760XLT .....	27.95	
BC-860XLT 100 ch prog scanner/air/800 .....	319.95	179 <sup>95</sup>
BC-895XLT 300 ch prog scanner/trunking .....	499.95	219 <sup>95</sup>
BC-9000XLT 500 ch 25MHz-1.3GHz .....	699.95	429 <sup>95</sup>
BC-005 CTCSS tone board; 8500/9000XLT ..	37.95	
BC-60XLT-1 30ch prog pocket; use AA batts ..	169.95	99 <sup>95</sup>
PS-001 DC power cord .....	8.95	
BC-80XLT 50 ch prog pocket scanner/800 ....	249.95	149 <sup>95</sup>
AD-100 AC adapter/batt cgr; earlier scanners	16.95	
AD-140 Extra charger; BC-100XLT/200XLT ....	13.95	
BP-70 Extra battery for BC-70XLT .....	27.95	
BP-200 Extra battery; BC-200XLT .....	26.95	

## UNIDEN - continued

	Reg	Sale
BP-205 Extra battery; BC-100XLT .....	26.95	
BC-120XLT 100 ch prog pocket w/aircraft ....	249.95	149 <sup>95</sup>
BC-230XLT 200ch prog pock/air/800/xtra batt	459.95	189 <sup>95</sup>
SC-150B 100 ch black sport pocket/800 .....	299.95	179 <sup>95</sup>
AD-70 Extra charger .....	10.95	
BP-120 Extra battery .....	18.95	
LC-120 Carrying case; BC120XLT/230XLT ..	19.95	
LC-150B Carrying case for SC-150B .....	19.95	
(KOS) QZ/99 Noise reduction headphones ..	59.99	
UA-502 Cig power cord .....	11.95	
BC-235XLT 300ch prog pock/trunk/xtra batt ...	499.95	219 <sup>95</sup>
BC-245XLT 300ch pocket/trunk/smart scan ..	499.95	229 <sup>95</sup>
BP-180 Extra battery .....	16.95	
LC-120 Carrying case .....	19.95	
BC-3000XLT 400 ch 25MHz-1.3GHz pocket ...	699.95	399 <sup>95</sup>
BP-2500 Extra batt; BC2500/3000 .....	63.95	
LC-2500 Carrying case; BC-2500/3000XLT ..	20.95	
NPD-001 National frequency book .....	14.95	9 <sup>95</sup>
RFD-001 IN/L/KY/OH/MI/WI freq book .....	14.95	
MC-535 25w 90 ch VHF marine Xcvr .....	199.99	119 <sup>95</sup>
MC-1010 25w VHF marine Xcvr .....	299.99	139 <sup>95</sup>
MC-1020 25w VHF marine Xcvr .....	319.99	149 <sup>95</sup>
HH-940 1w submersible VHF marine hand-held D	309.99	139 <sup>95</sup>
HH-940P 1w submersible VHF marine hand-held	309.99	149 <sup>95</sup>
HH-955 5w VHF marine hand-held .....	199.99	129 <sup>95</sup>
HH-980 5w 90 ch deluxe marine hand-held ..	399.99	199 <sup>95</sup>

## Unified Microsystems (UNM)

XT-4 Small size CW memory keyer .....	\$ 79.95	
KC-4 Cable set for XT-4 to transceiver .....	9.95	
W9XT Contest card for IBM PC & compatible	149.95	
CCC-4 4pin mic contest card cable semi-kit	44.95	
CCC-8 8pin mic contest card cable semi-kit	44.95	

## Universal Towers (UNT)

4-30 4 sq ft wind load 30' alum tower .....	\$348.00	313 <sup>95</sup>
9-30 9 sq ft wind load 30' alum tower .....	469.00	422 <sup>95</sup>
12-30 12 sq ft wind load 30' alum tower .....	616.00	554 <sup>95</sup>
21-30 21 sq ft wind load 30' alum tower .....	732.00	658 <sup>95</sup>
23-30 23 sq ft wind load 30' alum tower .....	969.00	872 <sup>95</sup>
35-30 35 sq ft wind load 30' alum tower .....	1092.00	982 <sup>95</sup>
4-40 4 sq ft wind load 40' alum tower .....	584.00	525 <sup>95</sup>
7-40 7 sq ft wind load 40' alum tower .....	734.00	660 <sup>95</sup>
9-40 9 sq ft wind load 40' alum tower .....	818.00	736 <sup>95</sup>
12-40 12 sq ft wind load 40' alum tower .....	969.00	872 <sup>95</sup>
15-40 15 sq ft wind load 40' alum tower .....	1083.00	974 <sup>95</sup>
21-40 21 sq ft wind load 40' alum tower .....	1203.00	1082 <sup>95</sup>
23-40 23 sq ft wind load 40' alum tower .....	1440.00	1296 <sup>95</sup>
4-50 4 sq ft wind load 50' alum tower .....	823.00	740 <sup>95</sup>
5-50 5 sq ft wind load 50' alum tower .....	936.00	842 <sup>95</sup>
7-50 7 sq ft wind load 50' alum tower .....	1053.00	947 <sup>95</sup>
9-50 9 sq ft wind load 50' alum tower .....	1171.00	1053 <sup>95</sup>
15-50 15 sq ft wind load 50' alum tower .....	1555.00	1399 <sup>95</sup>
16-50 16 sq ft wind load 50' alum tower .....	1678.00	1510 <sup>95</sup>
4-60 4 sq ft wind load 60' alum tower .....	1172.00	1054 <sup>95</sup>
6-60 6 sq ft wind load 60' alum tower .....	1437.00	1293 <sup>95</sup>
7-60 7 sq ft wind load 60' alum tower .....	1529.00	1376 <sup>95</sup>
9-60 9 sq ft wind load 60' alum tower .....	1640.00	1476 <sup>95</sup>
3-70 3 sq ft wind load 70' alum tower .....	1527.00	1374 <sup>95</sup>
4-70 4 sq ft wind load 70' alum tower .....	1877.00	1689 <sup>95</sup>
6-70 6 sq ft wind load 70' alum tower .....	1911.00	1719 <sup>95</sup>
7-70 7 sq ft wind load 70' alum tower .....	1996.00	1796 <sup>95</sup>
3-80 3 sq ft wind load 80' alum tower .....	2059.00	1853 <sup>95</sup>
4-80 4 sq ft wind load 80' alum tower .....	2384.00	2145 <sup>95</sup>
2-90 2 sq ft wind load 90' alum tower .....	2470.00	2223 <sup>95</sup>
B-14 Base for tower .....	65.95	
B-18 Base for tower .....	65.95	
B-22 Base for tower .....	110.28	99 <sup>95</sup>
B-26 Base for tower .....	141.78	127 <sup>95</sup>
Extra 14" stubs (between base & tower) .set	12.95	
Extra 18" stubs (between base & tower) .set	24.95	
Extra 22" stubs (between base & tower) .set	40.95	
Extra 26" stubs (between base & tower) .set	40.95	

## UNIVERSAL - continued

	Reg	Sale
Extra 30" stubs (between base & tower) .set	60.95	
RFM-11 Flat roof mt for guyed tower .....	44.95	
RFM-14 Flat roof mt for guyed tower .....	44.95	
RFM-18 Flat roof mt for guyed tower .....	69.95	
RFM-22 Flat roof mt for guyed tower .....	103.95	93 <sup>95</sup>
RFM-26 Flat roof mt for guyed tower .....	138.66	124 <sup>95</sup>
R-11 Rotor mount .....	31.95	
R-14 Rotor mount .....	47.95	
R-18 Rotor mount .....	63.95	
SEE LITERATURE FOR CONFIGURATION OF TOWERS		
11 Top 11" top tower section .....	118.20	106 <sup>95</sup>
14 Top 14" top tower section .....	148.94	134 <sup>95</sup>
18 Top 18" top tower section .....	270.10	243 <sup>95</sup>
14 Taper 14" taper tower section .....	131.04	117 <sup>95</sup>
18 Taper 18" taper tower section .....	235.04	211 <sup>95</sup>
22 Taper 22" taper tower section .....	350.48	315 <sup>95</sup>
26 Taper 26" taper tower section .....	471.12	424 <sup>95</sup>
11 Straight 11" straight tower section .....	116.48	104 <sup>95</sup>
14 Straight 14" straight tower section .....	131.04	117 <sup>95</sup>
18 Straight 18" straight tower section .....	235.04	211 <sup>95</sup>
22 Straight 22" straight tower section .....	350.48	315 <sup>95</sup>
26 Straight 26" straight tower section .....	471.12	424 <sup>95</sup>
HD35-40 35 sq ft wind load 40' alum tower T	1681.00	1512 <sup>95</sup>
HD21-50 21 sq ft wind load 50' alum tower T	1793.00	1613 <sup>95</sup>
HD9-60 9 sq ft wind load 60' alum tower ...T	1880.00	1692 <sup>95</sup>
HD16-60 16 sq ft wind load 60' alum tower T	2265.00	2038 <sup>95</sup>
HD21-60 21 sq ft wind load 60' alum tower T	2386.00	2147 <sup>95</sup>
HD8-70 8 sq ft wind load 70' alum tower ...T	2115.00	1903 <sup>95</sup>
HD12-70 12 sq ft wind load 70' alum tower T	2620.00	2358 <sup>95</sup>
HD17-70 17 sq ft wind load 70' alum tower T	2858.00	2572 <sup>95</sup>
HD21-70 21 sq ft wind load 70' alum tower T	2978.00	2680 <sup>95</sup>
HD8-80 8 sq ft wind load 80' alum tower ...T	2707.00	2436 <sup>95</sup>
HD9-80 9 sq ft wind load 80' alum tower ...T	2824.00	2541 <sup>95</sup>
HD11-80 11 sq ft wind load 80' alum tower T	3208.00	2887 <sup>95</sup>
HD12-80 12 sq ft wind load 80' alum tower T	3213.00	2891 <sup>95</sup>
HD16-80 16 sq ft wind load 80' alum tower T	3449.00	3104 <sup>95</sup>
HD4-90 4 sq ft wind load 90' alum tower ...T	2818.00	2536 <sup>95</sup>
HD8-90 8 sq ft wind load 90' alum tower ...T	3325.00	2992 <sup>95</sup>
HD11-90 11 sq ft wind load 90' alum tower T	3802.00	3421 <sup>95</sup>
HD4-100 4 sq ft wind load 100' alum tower T	3775.00	3397 <sup>95</sup>
HD8-100 8 sq ft wind load 100' alum tower T	4039.00	3635 <sup>95</sup>
B-30 Base for HD tower .....	221.50	199 <sup>95</sup>
RFM-30 Flat roof mt for guyed tower .....	193.98	174 <sup>95</sup>
1-5/BSC Flange bearing .....	94.95	
2-3/16SC Flange bearing .....	120.64	108 <sup>95</sup>
Top Plate Flange plate welded to top section	23.95	

## SEE LITERATURE FOR CONFIGURATION OF TOWERS

30 Taper 30" taper tower section .....	592.80	533 <sup>95</sup>
30 Straight 30" straight tower section .....	592.80	533 <sup>95</sup>
1-1/4" OD x 5 ft aluminum mast .....	22.95	
1-1/4" OD x 10 ft aluminum mast .....	31.95	
1-1/2" OD x 10 ft aluminum mast .....	39.95	
2" OD x 8 ft aluminum mast .....	47.95	
2" OD x 16 ft aluminum mast .....	94.95	

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## VALOR (See PRO AM)

## VANCO (VCO)

370052 3 1/2" digital multimeter .....	\$ 19.95	
SWR-1 SWR/field strength meter .....	36.14	19 <sup>95</sup>
SWR-3 Mini SWR meter .....	21.68	14 <sup>95</sup>



# PRICE GUIDE

## VAN GORDEN (VAN)

	Reg	Sale
Hi-Q 1:1 balun .....	\$	14.95
Hi-Q 4:1 balun .....		14.95
Antenna center insulator .....		6.95
Antenna end insulator .....	pair	4.95
Dog bone type antenna insulator .....	each	.95
NR-100 Nylon antenna guy rope .....	100 ft.	4.95
NR-1,000 Nylon ant guy rope .....	1,000 ft.	44.95
D-80 80m wire dipole antenna .....		32.95
SD-80 Short 80m dipole .....		36.95
D-40 40m wire dipole antenna .....		29.95
SD-40 Short 40m dipole .....		34.95
D-20 20m wire dipole antenna .....		28.95
D-15 15m wire dipole antenna .....		27.95
D-10 10m wire dipole antenna .....		26.95
All Bander Dipole 160-10m (w/tuner) 135' ant		29.95
Shorty All Bander 160-10m (w/tuner) 70' ant		44.95
G5RV Flat-top 5-band 102' ant/xmfr/100' cable		50.95
G5RV-E Flat-top 5-band 102' ant/31' cable		28.95
G5RV JR Flat-top 4-band 52' ant/17' cable		24.95
G5RV-M Flat-top 5-band 204' ant/65' cable		50.95
N connector Type N connector for 9913 .....		4.95
#14 Stranded hard drawn ant wire .....	100 ft.	11.95
#14 Stranded hard drawn ant wire .....	150 ft.	16.95
450 ohm 18ga solid ladderline .....	100 ft.	12.95
450 ohm 18ga solid ladderline .....	1,000 ft.	110.00
450 ohm 14ga stranded ladderline .....	100 ft.	24.95
450 ohm 14ga stranded ladderline .....	1,000 ft.	220.00
(WA1) WA1FFL Ladder-Loc 450 ohm ctr ins		12.95
RG-213 Non-contaminating .....	per ft.	49¢
RG-213/500 Non-contaminating .500 ft. Roll		179 <sup>95</sup>
8X-3ST 3' RG-8X coax/silver teflon PL259s ...		8.95
8X-6ST 6' RG-8X coax/silver teflon PL259s ...		10.95
8X-12ST 12' RG-8X coax/silver teflon PL259s ...		11.95
8X-25ST 25' RG-8X coax/silver teflon PL259s ...		15.95
8X-50ST 50' RG-8X coax/silver teflon PL259s ...		24.95
8X-75ST 75' RG-8X coax/silver teflon PL259s ...		31.95
8X-100ST 100' RG-8X coax/silver teflon PL259s ...		37.95
213-3ST 3' RG-213 coax/silver teflon PL259s ...		11.95
213-6ST 6' RG-213 coax/silver teflon PL259s ...		14.95
213-12ST 12' RG-213 coax/silver teflon PL259s ...		18.95
213-25ST 25' RG-213 coax/silver teflon PL259s ...		25.95
213-50ST 50' RG-213 coax/silver teflon PL259s ...		38.95
213-75ST 75' RG-213 coax/silver teflon PL259s ...		54.95
213-100ST 100' RG-213 coax/silver teflon PL259s ...		72.95
<b>VECTRONICS (VEC)</b>		
VC-300M 300w mobile antenna tuner .....	\$109.95	99 <sup>95</sup>
VC-300DLP 300w antenna tuner .....	159.95	149 <sup>95</sup>
VC-300D 300w digital antenna tuner .....	199.95	179 <sup>95</sup>
HFT-1500 1.5kw antenna tuner .....	459.95	399 <sup>95</sup>
AT-100 .3-30 MHz active antenna/tuner .....	79.95	
HF-600QSK 1kw HF amplifier w/QSK .....	1595.00	1199 <sup>95</sup>
HPF-1 High pass filter, 75 or 300 ohms .....	19.95	
HPF-2 Deluxe high pass filter, 75 or 300 ohms	24.95	
LP-30 1.5kw low pass filter .....	49.95	
LP-2500 2.5kw low pass filter .....	79.95	
CK-200 Deluxe keyer .....	79.95	
DL-300M 300w dummy load .....	34.95	
DL-650M 1.5kw dummy load .....	64.95	
DL-2500 2.5kw dummy load .....	199.95	179 <sup>95</sup>
PM-30HF 300/3kw HF wattmeter .....	79.95	
PM-30UV 30/300w VHF/UHF wattmeter .....	89.95	
AC-12 12vdc 300ma adapter .....	12.95	
PS-30F 25A power supply, 30A surge .....	129.95	
PS-50F 35A power supply, 50A surge .....	199.95	
121K Crystal radio set kit .....	19.95	
131K Aircraft receiver kit .....	29.95	
201K CW keyer kit .....	24.95	
412K Nicad/NiMH battery conditioner kit .....	49.95	
422K FM broadcast SCA decoder kit .....	27.95	
820K Super CW audio filter kit, 750Hz center	19.95	

## VECTRONICS - continued

	Reg	Sale
821K Super CW audio filter w/lw amp kit ....	29.95	
830K Super SSB audio filter kit .....	19.95	
841K Tunable SSB/CW audio filter kit .....	34.95	
1140K 40m receiver kit .....	29.95	
1240K 40m QRP CW transmitter kit .....	29.95	
1290K AM radio transmitter kit .....	29.95	
1294K TV transmitter kit .....	27.95	
1402K 2m preamp kit .....	17.95	
1422K 220MHz preamp kit .....	17.95	

## VIBROPLEX (VIB)

	Reg	Sale
090 Original Gold Bug .....	\$329.95	299 <sup>95</sup>
100 Original Presentation Super deluxe bug	289.95	269 <sup>95</sup>
105 Original Deluxe Bug .....	199.95	
110 Original Standard Bug .....	159.95	
113 VibroKeyer Gold Paddle .....	299.95	269 <sup>95</sup>
115 VibroKeyer Deluxe Paddle .....	179.95	
120 VibroKeyer Standard Paddle .....	139.95	
123 Iambic Gold Paddle .....	299.95	269 <sup>95</sup>
125 Iambic Presentation Paddle .....	259.95	239 <sup>95</sup>
130 Iambic Deluxe Paddle .....	179.95	
135 Iambic Standard Paddle .....	139.95	
145 Triangular Brass Racer Iambic paddle	99.95	
150 Square Brass Racer Iambic paddle .....	139.95	
153 Gold straight key .....	299.95	269 <sup>95</sup>
155 Standard straight key .....	139.95	
160 Deluxe straight key .....	179.95	
162 Gold Hand key/Iambic Paddle double ....	399.95	359 <sup>95</sup>
163 Gold Hand key/VibroKeyer Paddle double	399.95	359 <sup>95</sup>
165 Deluxe Hand key/Iambic Paddle double	349.90	319 <sup>95</sup>
170 Dlx Hand key/VibroKeyer Paddle double	349.90	319 <sup>95</sup>
175 Standard Hand key/Iambic Paddle double	299.95	269 <sup>95</sup>
180 Std Hand key/VibroKeyer Paddle double	299.95	269 <sup>95</sup>
185 Square Racer Deluxe Iambic paddle .....	134.95	
190 Square Racer Standard Iambic paddle	109.95	

## WA1FFL (WA1)

Ladder-Loc 450 ohm ladderline center attach	\$ 12.95
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## W2AU (Unadilla) (W2A)

W2AU 1:1 160-10m balun, lightning arrestor	\$ 24.95
W2AU Beam Balun, 1:1 .....	24.95
W2AU 4:1 160-10m balun, lightning arrestor	24.95
W2DU-HF 1:1 1.8-30 MHz choke balun .....	26.95
W2DU Beam Balun 40-10m 1:1 choke balun	26.95
W2DU-VHF 1:1 30-250 MHz choke balun .....	26.95
HA AN-sulator center insulator .....	9.95
HE END-sulator end insulators .....	pair 4.95
KW-80CW Reyco 80m CW ant traps .....	pair 48.95
KW-80F Reyco 75m phone ant traps .....	pair 48.95
KW-40 Reyco 40m antenna traps .....	pair 42.95
KW-30 Reyco 30m antenna traps .....	pair 42.95
KW-20 Reyco 20m antenna traps .....	pair 41.95
KW-17 Reyco 17m antenna traps .....	pair 41.95
KW-15 Reyco 15m antenna traps .....	pair 41.95
KW-12 Reyco 12m antenna traps .....	pair 41.95
KW-10 Reyco 10m antenna traps .....	pair 41.95
W2AU/W2VS 5-band ant kit (use tuner) .....	85.95

## W5YI (W5Y)

GCSP Gordon West Gen code tapes/manual ....	D \$ 19.90
GTSP Gordon West Gen theory tapes/manual ...	D 19.90
GUS General Upgrade Software .....	34.95
GWAM Gordon West Advanced study manual	11.95
GWAW Gordon West Adv written theory tapes	19.95
GWEE Gordon West 6 ea 10-28 wpm code tapes	29.95
GWEM Gordon West Extra study manual .....	11.95
GWET Gordon West Extra code tapes .....	9.95
GWEW Gordon West Extra written theory tapes	19.95
GWGG Gordon West 6 ea 5-16 wpm code tapes	29.95
GWGM Gordon West General study manual ...	11.95
GWGT Gordon West General code tapes .....	9.95
GWGW Gordon West General theory tapes .....	9.95
GWNG Gordon West 6 ea 0-7 wpm code tapes	29.95
GWNT Gordon West Novice Code Teacher .....	9.95

## W5YI - continued

	Reg	Sale
GWNW Gordon West Novice theory tapes .....	9.95	
GWT6 Gordon West No-Code Tech theory tapes	29.95	
GWTM Gordon West No-Code Tech manual ....	12.95	
GWTW Gordon West Tech theory tapes .....	9.95	
HOS Ham operator software package .....	39.95	
NCSW No-code ham radio WIN soft package	34.95	
NCVP Ham No-Code video seminar w/manual	31.95	
TPG Tech/TechPlus/General manuals/soft/code	49.95	

## WAHL (WAH)

7740 Quick charge cordless soldering iron kit	\$ 47.95
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## WALNUT CREEK (WAL)

Antennas Antennas CD-ROM .....	\$ 29.95
Garbo 250 MB DOS + 150 MB Mac .....	D 29.95
Giga Games 3,000 DOS/Windows games ....	39.95
Ham QRZ US & Canada calls plus programs.	29.95
Hobbes 1,000's of OS/2 applications .....	29.95
Simtel 650 MB current DOS programs .....	29.95

## WELLER (WEL)

7200PK 75w soldering gun kit .....	\$ 27.95
EC-1002-1 40w temp controlled solder stn ..	244.49
WP-25 25w professional soldering iron .....	32.95
W-60P 60w temp controlled soldering iron ...	62.95
WSTA3 Pyrophen portable LP soldering iron ...	107.49
WST2 Pyrophen Jr. portable butane iron .....	86.95
WTCPT 60w temp controlled soldering stn ....	136.28

## WILSON (WIL)

Trucker 2000 Black mobile 3/4-24 CB whip ...	\$ 59.95
W-1000 Magnetic Black mobile CB ant .....	79.95
W-1000 Roof Top Black mobile CB ant .....	59.95
W-1000 Trunk Lip Black mobile CB ant .....	69.95

## X-10 (X10)

### HOME AUTOMATION/SECURITY

CK-11A X-10 ActiveHome automation/win soft	† \$119.99
DS-7000 7-piece home security system .....	269.99
PK-9 REX-10 barking dog alarm .....	79.99
DM-10A Motion detector for REX-10 .....	34.99
AM-466 3-pin grounded appliance module	† 16.99
AM-486 2-pin polarized appliance module	† 15.99
DS-10A Long range door/window sensor ....	31.99
DW-534 Door/window sensor .....	21.99
KF-574 Key fob security remote control .....	26.99
LM-465 Lamp module .....	15.99
MC-460 6 function 8 unit mini controller ...	15.99
PH-508 Remote 110 db siren .....	59.99
PR-511 2 floodlite motion detect/rem light	† 64.99
RW-694 4 unit wireless wall switch .....	21.99
RW-724 3 unit+dimmer wirels wall switch	† 19.99
RW-6900 Wireless wall switch set .....	31.99
SC-503 6 function 16 unit maxi controller	† 29.99
SH-10A Indoor 90 db remote alarm siren ...	31.99
SP-554A Wireless motion detector .....	59.99
SR-227 Wall receptacle mod/custom plate	† 21.99
TH-2807 Thermostat set-back controller ....	21.99
WS-467 Wall switch module .....	15.99

## YAESU (YAE)

FT-1000MP/DC HF Xcvr/EDSP/tuner .....	3399.00
FP-1023 23A switching ps w/fan, 25A surge	169.00
FP-1030A 25A ps, 30A surge w/meters .....	269.00
FT-1000MP 9-band Xcvr/EDSP/tuner/ps ...	3699.00
DVS-2 Digital voice recording module .....	238.00
FH-1 Remote control keypad .....	88.95
MD-100A8X Desk mic w/tone control .....	138.00
MH-3188 Extra hand microphone .....	39.95
SP-8 External speaker w/filters .....	173.00
LL-7 Phone patch unit for SP-8 .....	153.00
TCXO-4 TCXO unit .....	99.95
TCXO-6 Deluxe TCXO unit, 0.5 ppm .....	190.00
YF-110CN 250 Hz 3rd IF main Rcvr CW filt	157.00
YF-110SN 2 KHz 3rd IF main Rcvr SSB filt	157.00
YF-114CN 250 Hz 2nd IF main Rcvr CW filt	157.00



## YAESU - continued

YF-114SN 2 KHz 2nd IF main Rcvr SSB filt	157.00	144 <sup>95</sup>
YF-115C 500 Hz CW Collins mech filter	173.00	159 <sup>95</sup>
YH-77ST Open-air type stereo headphones	51.95	
<b>FT-1000</b> Xcvr/ps/tuner/kyr/mic/XF-AB	4399.00	3399 <sup>95</sup>
BPF-1 Dual bandpass filter; crossband rcv	196.00	179 <sup>95</sup>
TCXO-1 Temp compensated xtal osc	190.00	174 <sup>95</sup>
XF-C 2.4KHz SSB xtal filt (455KHz)	157.00	144 <sup>95</sup>
YF-110SN/XF-D 2 KHz SSB xtal filt (455 KHz)	157.00	144 <sup>95</sup>
YF-115C 500 Hz CW Collins mech filter	173.00	159 <sup>95</sup>
<b>FT-1000D</b> Dlx Xcvr w/BPF/TCXO/XF-ABCDE	5459.00	4199 <sup>95</sup>
DVS-2 Digital voice recording module	238.00	219 <sup>95</sup>
FIF-232C Interface for RS-232	95.95	
MD-100A8X* Desk mic w/tone control	138.00	129 <sup>95</sup>
*Cable needed for FT-1000D contact service for info		
SP-5 External spkr w/audio filter	157.00	144 <sup>95</sup>
LL-5 Phone patch unit for SP-5	143.00	129 <sup>95</sup>
XF-455MC 600Hz CW filter (455KHz); subrcvr	157.00	144 <sup>95</sup>
YF-110CN/XF-F 250 Hz CW xtal filter (455 KHz)	157.00	144 <sup>95</sup>
YH-77ST Open-air type stereo headphones	51.95	
<b>FT-920</b> 9-band Xcvr/AF-DSP/tuner/6m/kyr	2299.00	1449 <sup>95</sup>
<b>FM-1 FM unit FREE with FT-920! Limited Time!</b>		
FP-1023 23A switching ps w/fan, 25A surge	169.00	159 <sup>95</sup>
FP-1030A 25A ps, 30A surge w/meters	269.00	249 <sup>95</sup>
FM-1 FM unit	62.95	
MD-100A8X Desk mic w/tone control	138.00	129 <sup>95</sup>
SP-8 External speaker w/filters	173.00	159 <sup>95</sup>
LL-7 Phone patch unit for SP-8	153.00	139 <sup>95</sup>
TCXO-7 TCXO unit	99.95	
YF-116A 6 KHz AM filter	127.00	119 <sup>95</sup>
YF-116C 500 Hz CW filter	127.00	119 <sup>95</sup>
YH-77ST Open-air type stereo headphones	51.95	
<b>FT-847</b> HF/6m/2m/430 Earth Station Xcvr/mic	2399.00	1499 <sup>95</sup>
*Sale price w/instant coupon; coupon expires 5/31/99		
FP-1023 23A switching ps w/fan, 25A surge	169.00	159 <sup>95</sup>
FP-1030A 25A ps, 30A surge w/meters	269.00	249 <sup>95</sup>
ATAS-100 HF/6/2/430 motorized mob ant	349.00	319 <sup>95</sup>
ATBK-100 Antenna base kit; use w/base mt	89.95	
CT-61 Interface cable; FT-847 to amplifier	15.95	
FC-20 Automatic antenna tuner	299.00	269 <sup>95</sup>
FVS-1A Voice synthesizer	43.95	
MD-100A8X Desk mic w/tone control	138.00	129 <sup>95</sup>
MH-3608 DTMF mobile microphone	60.95	
MMB-66 Mobile mounting bracket	39.95	
SP-8 External speaker w/filters	173.00	159 <sup>95</sup>
LL-7 Phone patch unit for SP-8	153.00	139 <sup>95</sup>
YF-115C 500 Hz CW Collins mech filter	173.00	159 <sup>95</sup>
YF-115S-02 2.5 KHz SSB Collins mech filt	173.00	159 <sup>95</sup>
YH-77ST Open-air type stereo headphones	51.95	
<b>FT-840</b> Xcvr/SW Rcvr	1029.00	739 <sup>95</sup>
FP-1023 23A switching ps w/fan, 25A surge	169.00	159 <sup>95</sup>
FP-1030A 25A ps, 30A surge w/meters	269.00	249 <sup>95</sup>
FC-10 External coax fed auto tuner	429.00	379 <sup>95</sup>
FC-800 External long wire auto tuner	525.00	439 <sup>95</sup>
FIF-232C Interface for RS-232	95.95	

## Reg Sale

## YAESU - continued

FM-747 FM unit	62.95	
MD-100A8X* Desk mic w/tone control	138.00	129 <sup>95</sup>
*Cable needed for FT-840 contact service for info		
MMB-20 Mobile mount	34.95	
SP-6 External speaker w/filter	157.00	144 <sup>95</sup>
SP-7 Mobile speaker	40.95	
TCXO-4 TCXO unit	99.95	
YF-112A 6 KHz AM filter	127.00	119 <sup>95</sup>
YF-112C 500 Hz CW filter	127.00	119 <sup>95</sup>
YH-77ST Open-air type stereo headphones	51.95	
<b>FT-100</b> Mini HF Xcvr/6m/2m/440/DSP/TTP mic	1689.00	1349 <sup>95</sup>
FP-1023 23A switching ps w/fan, 25A surge	169.00	159 <sup>95</sup>
FP-1030A 25A ps, 30A surge w/meters	269.00	249 <sup>95</sup>
ATAS-100 HF/6/2/430 motorized mob ant	349.00	319 <sup>95</sup>
ATBK-100 Antenna base kit; use w/base mt	89.95	
CT-58 Band data cable	29.95	
CT-62 CAT interface cable	29.95	
FC-20 Automatic antenna tuner	299.00	269 <sup>95</sup>
FVS-27 CTCSS decoder unit	47.95	
MMB-62 Remote front panel mounting bkt	39.95	
MMB-67 Quick release bracket	29.95	
SP-6 External speaker w/filter	157.00	144 <sup>95</sup>
LL-5 Phone patch unit for SP-6	143.00	129 <sup>95</sup>
SP-7 Mobile speaker	40.95	
TCXO-8 TCXO unit	99.95	
XF-117A 6 KHz AM filter	127.00	119 <sup>95</sup>
XF-117C 500 Hz CW filter	157.00	149 <sup>95</sup>
XF-117CN 300 Hz CW filter	157.00	149 <sup>95</sup>
Suggest dealer installation of filters in FT-100; only two sockets available; use XF-117C & XF-117A OR XF-117CN		
YH-77ST Open-air type stereo headphones	51.95	
YSK-100 Separation kit	79.95	
ATU-2 Internal auto ant tuner; FT-900	301.00	229 <sup>95</sup>
CT-11 Cable - FL-7000 to FT-890/900	19.95	
CT-20 Mic cable for use with MD-1C8	22.95	9 <sup>95</sup>
CT-26 Mic adapter cable; modular to 8-pin	22.95	
E-767 Cable - FL-7000/767/990/1000/MP	16.95	
FAS-1-4R Remote antenna selector	143.00	129 <sup>95</sup>
FR-700 20A power supply w/speaker	286.00	129 <sup>95</sup>
FRB-757 External relay box	31.95	
FX-1 Transceiver-FAX interface/controller		49 <sup>95</sup>
MH-31A8J Extra hand mic; FT-900	39.95	
SP-767P Speaker/patch	143.00	99 <sup>95</sup>
TCXO-2 Temp comp xtal osc; FT-990	157.00	69 <sup>95</sup>
TCXO-3 TCXO unit; FT-900	79.95	
XF-10.9M-202-01 2KHz SSB filt; FT-990	127.00	119 <sup>95</sup>
XF-110S 455 KHz 500 Hz CW filter; FT-900	157.00	144 <sup>95</sup>
XF-110CN 455 KHz 250 Hz CW filter; FT-900	157.00	144 <sup>95</sup>
XF-1110S 455 KHz 2.6 KHz SSB filter; FT-900	157.00	144 <sup>95</sup>
XF-115S-01/YF115S01 2.75 Collins filter	189.00	99 <sup>95</sup>
XF-455M6 600 Hz CW filter; FT-650	169.00	49 <sup>95</sup>
YA-007FG Mobile fg 3-30 MHz whip	157.00	69 <sup>95</sup>
YA-30 1.8-30 MHz broadband dipole ant	269.00	239 <sup>95</sup>
YH-77ST Open-air type stereo headphones	51.95	

## Reg Sale

## YAESU - continued

YS-60 1.8-60 MHz 2kw PEP wattmeter	139.00	129 <sup>95</sup>
YS-500 140-520 MHz 200w PEP wattmeter	114.00	109 <sup>95</sup>
YSK-900 20' rem mtg kit/tkn mtg bkt; FT-900	68.95	49 <sup>95</sup>
<b>Quadra System</b> VL/PI1000 160-6 amp/ps/tuner	5990.00	3999 <sup>95</sup>
MR-1000 Quadra system mounting rack	299.95	
<b>FRG-100B</b> 1-30 MHz shortwave receiver	739.00	619 <sup>95</sup>
FM Unit-100 FM unit	47.95	
TCXO-4 TCXO unit	99.95	
YF-110CN/XF-F 250 Hz CW xtal filter	157.00	144 <sup>95</sup>
YF-115C 500 Hz CW Collins mech filter	173.00	159 <sup>95</sup>
E-736 DC cable for FT-736R	16.95	
FEX-736-50 6m module for FT-736R	317.00	279 <sup>95</sup>
FEX-736-220 220 MHz module; FT-736R	349.00	309 <sup>95</sup>
FEX-736-1.2 1.2 GHz module for FT-736R	619.00	539 <sup>95</sup>
FTS-8 Encoder/decoder for FT-736R	62.95	
Keyer-B Electronic keyer unit; FT-736R	26.95	
SP-767 Speaker w/audio filters; FT-736R	110.00	99 <sup>95</sup>
TV-736 1.2 GHz ATV converter for FT-736R	205.00	189 <sup>95</sup>
<b>FT-290R Mk II</b> 25w 2m FM/SSB Xcvr/TTP	749.00	629 <sup>95</sup>
CSC-19 Soft case	16.95	
FBA-8 Holder for 9 C-cell nicads	39.95	
NC-26B Wall charger for FBA-8	9.95	
FTS-7A Encoder/decoder; current units	44.95	
AD-3 100w 2m/440 duplexer	52.95	
DVS-3 Dig voice unit; FT-2200/5200/6200/7200	157.00	69 <sup>95</sup>
FRG-4 DTMF pager unit; FT-5200/6200	47.00	14 <sup>95</sup>
MH-1B8 Extra hand mic; older Yaesu Xcvr	30.95	
MH-27B8 8-pin TTP mic; FT-5200/6200	65.95	
MW-2* Wireless rem cont mic; 5200/6200	162.00	59 <sup>95</sup>
* Requires jumper modification		
MMB-53 Mobile mtg bkt for MW-2	8.95	6 <sup>95</sup>
YSK-1L Sep kit w/18' cable; FT-5200/6200	58.95	49 <sup>95</sup>
<b>FT-8100R</b> 50/35w 2m/440 FM Xcvr/TTP	699.00	469 <sup>95</sup>
ADMS-2D Windows programming software	39.95	
CT-39 Packet cable	9.95	
FTS-22 CTCSS decode unit	68.95	
MEK-2 Mic extension kit	42.95	
MMB-60 Quick release mobile bracket	31.95	
YSK-8100 Remote separation kit	69.95	
MH-1508 Autodial TTP microphone	75.95	69 <sup>95</sup>
MH-39A6J Extra regular mic; FT-8500	104.95	99 <sup>95</sup>
YSK-8500 Remote separation kit; FT-8500	69.95	
<b>FT-3000M</b> 70w 2m FM Xcvr/TTP/ext rcv	542.00	399 <sup>95</sup>
ADMS-2D Windows programming software	39.95	
CT-39 Packet cable	9.95	
DVS-4 Digital voice recording module	47.95	
FTS-17A CTCSS decode unit	47.95	
<b>FT-2500M</b> 50w 2m FM Xcvr/MH-36 TTP mic	409.00	199 <sup>95</sup>
2400 Mic Cable 2' packet cable	9.95	
FRG-6 DTMF pager unit	47.00	9 <sup>95</sup>
FTS-17A CTCSS decode unit	47.95	
MH-27A8J Older TTP mic w/modular plug	60.95	
SP-7 External speaker	40.95	

## Reg Sale

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# PRICE GUIDE

## YAESU - continued

	Reg	Sale
<b>FT-2600M</b> 60w compact 2m FM Xcvt/TTP mic	289.00	239 <sup>95</sup>
<b>FP-712/Vertex</b> 10A switching ps, 12A surge	135.00	129 <sup>95</sup>
<b>FP-1023</b> 23A switching ps w/fan, 25A surge	169.00	159 <sup>95</sup>
<b>FP-1030A</b> 25A ps, 30A surge w/meters	269.00	249 <sup>95</sup>
<b>LF-1</b> Mobile 13A DC noise filter	26.95	
<b>MLS-100</b> Mobile speaker	45.95	
<b>SP-3</b> Small mobile speaker	23.95	
<b>SP-4</b> Mobile speaker	31.95	
<b>VXR-5000VADC/Vertex</b> 25w 2m FM rpttr	1635.00	1199 <sup>95</sup>
<b>VXR-5000V/TA/Vertex</b> 25w 2m FM rpttr/ps	1909.00	1399 <sup>95</sup>
<b>VXR-5000U/DC/Vertex</b> 25w 440 FM rpttr	1635.00	1199 <sup>95</sup>
<b>VXR-5000U/TC/Vertex</b> 25w 440 FM rpttr/ps	1909.00	1399 <sup>95</sup>
Repeaters require service dept. set-up; \$72 minimum		
<b>COM ID-8</b> Auto morse code ID'er	69.95	
<b>MR-KIT1</b> 19" rack mtg kit; VXR repeater	218.00	199 <sup>95</sup>
<b>VXD-40UB/Vertex</b> 440 duplexer (untuned)	222.00	199 <sup>95</sup>
Tuning charge; duplexer (specify freqs)	50.95	
<b>VX VPL-1D/Vertex</b> PC prog cable & software	95.95	

### Accessory for FT-208R/708R

<b>FNB-2A</b> Nicad battery pack	Δ	\$ 45.95
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### Accessories for 09-series/03-series

<b>FNB-4A</b> 500ma 12v battery	Δ	\$ 62.95
<b>FTS-6</b> Encoder/decoder; 09-series	D	35.00 9 <sup>95</sup>
<b>MMB-21</b> Mobile bracket; also for 727R	D	16.00 4 <sup>95</sup>

### Accessories for FT-26/415/416/530

<b>CA-8</b> 2 chg sleeves; NC-50/FT-416/530	D	\$ 27.95 4 <sup>95</sup>
<b>CLIP-3</b> Belt clip	Δ	7.95
<b>CSC-50</b> Vinyl case; 415/416/FNB25	D	16.00 2 <sup>95</sup>
<b>FBA-12</b> AA cell holder	Δ	19.95
<b>FT-23R-12</b> 5w 2m FM HT/FNB-12S/cgr		257.00 199 <sup>95</sup>
<b>FT-33R</b> 5w 220 FM HT/batt/cgr		369.00 299 <sup>95</sup>
<b>FT-411E/HP</b> 5w 2m FM HT/FNB-12S/cgr/TTP		313.00 259 <sup>95</sup>
<b>FT-911</b> 1w 1.2 GHz FM HT/batt/cgr/TTP		569.00 469 <sup>95</sup>

### Accs for FT-23R/33R/73R/411E/811/470/911

<b>CA-7</b> 2 charging sleeves; NC-50/411E/470	\$	27.95
<b>CLIP-1</b> Belt clip		7.95
<b>CSC-24S</b> Soft case; 23R/33R/73R w/FNB-12S D		16.00 2 <sup>95</sup>
<b>CSC-28</b> Soft case; 23R/33R/73R w/FNB-12S		16.95
<b>CSC-35</b> Soft case; FT-411E/811/911/FNB-17 D		16.00 2 <sup>95</sup>
<b>CSC-36</b> Soft case; FT-411E/FNB-10/FBA-10 D		16.00 9 <sup>95</sup>
<b>CSC-37</b> Soft case; FT-411E w/FNB-12S/14		16.95
<b>CSC-48</b> Soft case; 23R/33R/73R w/FNB-17 D		16.95 4 <sup>95</sup>
<b>FBA-17</b> AA battery holder		19.95
<b>FNB-12S</b> 600ma 12v (5w) battery		55.95
<b>FNB-14</b> 1000ma 7.2v battery		55.95
<b>FNB-17</b> 600ma 7.2v battery		34.95
<b>FTS-12</b> Encoder/decoder for FT-23R/33R/73R		60.95
<b>FTS-17A</b> Tone squelch/pager; FT-411E		47.95
<b>FTT-4</b> DTMF (TTP) unit for FT-23R/33R/73R D		48.95 19 <sup>95</sup>
<b>MH-30C2B</b> Speaker/microphone		45.95
<b>MH-34C2B</b> Compact lapel speaker/mic		30.95
<b>MH-35A2B</b> Spkr mic/clip/earphone jack		39.95
<b>MMB-46</b> Mobile hanger for FT-470	D	25.00 4 <sup>95</sup>
<b>NC-28B</b> Extra wall charger for FNB-17		14.95
<b>NC-34B</b> Wall charger for FNB-14		14.95
<b>NC-65B/NC-18B</b> Wall charger for FNB-12S		14.95
<b>PA-6</b> Mobile DC adapter/cgr; FNB-14/17		31.95
<b>YH-2</b> Lightweight VOX headset w/mic		30.95

<b>FT-10/40B-A16S</b> 2.5w 2m/16ky/99ch/DVR Δ	389.00	259 <sup>95</sup>
<b>FT-10/41B-A16S</b> 5w 2m/16ky/99ch/DVRS Δ	399.00	269 <sup>95</sup>
<b>FT-40/41B-A16D</b> 5w 440 HT/16key/99ch Δ	409.00	279 <sup>95</sup>
<b>FT-40/41B-A16S</b> 5w 440/16ky/99ch/DVRS Δ	429.00	289 <sup>95</sup>
<b>FT-50RD/41B</b> 5w 2m/440 HT/FNB41/FTT-12 †	449.00	279 <sup>95</sup>
<b>ADMS-1E</b> Windows programming software	39.95	
<b>CA-15</b> Charging stand; FT-10/40/50	27.95	
<b>NC-60B</b> Wall charger; FNB-40/41/CA-15	14.95	
<b>CLIP-10</b> Spring loaded belt clip	7.95	
<b>CN-2</b> BNC to SMA adapter; FT-10/40	8.95	
<b>CN-3</b> BNC to SMA adapter; FT-50R	8.95	
<b>CSC-68</b> Soft case; FNB-41/FBA-15	16.95	
<b>CSC-69</b> Soft case; FNB-40	16.95	
<b>CSC-V10</b> Cordura soft case; FT-10/40/50	27.95	

## YAESU - continued

	Reg	Sale
<b>CT-27</b> Cloning cable	10.95	
<b>CT-30</b> Microphone Y adapter	10.95	
<b>EDC-5B</b> DC adapter w/noise filter	26.95	
<b>EDC-6</b> DC adapter; plug & wire only	7.95	
<b>FBA-15</b> AA battery holder	19.95	
<b>FEP-10</b> Earphone	9.95	
<b>FNB-40</b> 650ma 6v battery	48.95	
<b>FNB-41</b> 600ma 9.6v (5w) battery	58.95	
<b>FNB-42</b> 1100ma 9.6v (5w) battery	62.95	
<b>FNB-V47</b> 1100ma 7.2v battery w/belt clip	55.95	
<b>PA-17</b> Battery cable extender	57.95	
<b>FNB-49</b> 600ma 6v battery	D	38.00 19 <sup>95</sup>
<b>FTT-10/A16</b> 16-key pad/enc/30ch; 10/40 Δ	34.95	
<b>FTT-10/A16S</b> 16-key/enc/dec/99ch/DVR; 10/40 Δ	81.95	
<b>FTT-12</b> 16-key keypad/dec/DVRS; FT-50R	D	62.95 29 <sup>95</sup>
<b>LCC-10C</b> Leather case/belt clip; 50/FNB41/V47	31.95	
<b>LCC-10S</b> Leather case/swivel; 50/FNB41/V47	31.95	
<b>LCC-11S</b> Leather case/swivel; FT50/FNB40	31.95	
<b>MH-30C2B</b> Speaker/mic; use CT-30 also	45.95	
<b>MH-34B4B</b> Speaker/mic	30.95	
<b>MH-37A4B</b> Earpiece/microphone	30.95	
<b>NC-50</b> 1-hour dual slot charger	92.95	
<b>CA-14</b> 2 charging sleeves; NC-50	26.95	
<b>RH-1</b> Black rubber case protector	7.95	
<b>RH-1R</b> Orange rubber case protector	7.95	
<b>VC-23</b> VOX headset	D	62.95 59 <sup>95</sup>
<b>VC-25</b> VOX headset		62.95
<b>YHA-54</b> Replacement 2m/440 BNC duck	16.95	
<b>FT-11R/HP</b> 5w 2m HT/FNB-38/cgr/TTP	†	399.00 269 <sup>95</sup>
<b>FT-51R/HP</b> 5w 2m/440 HT/FNB-38/cgr/TTP †	†	639.00 379 <sup>95</sup>
<b>51R Clone</b> CT-35 Clone cable; FT-11/41/51R		9.95
<b>ADMS-1E</b> Windows programming software		39.95
<b>CD-2</b> Mobile rapid cgr; FT-11R/41R/51R	D	103.95 29 <sup>95</sup>
<b>CSC-61</b> Case; 11R/41R/FNB-33/38/FBA-14		16.95
<b>CSC-62</b> Soft case for FT-11R/41R/FNB-31		16.95
<b>CSC-66</b> Soft case; FT-51R/FNB-33/38/FBA-14		19.95
<b>CSC-67</b> Soft case for FT-51R/FNB-31		19.95
<b>EDC-12</b> DC adapter; FT-11R/41R/51R		38.95
<b>FBA-14</b> AA battery holder		19.95
<b>FNB-31</b> 600ma 4.8v battery		47.95
<b>FNB-33</b> 1200ma 4.8v battery		62.95
<b>FNB-38</b> 600ma 9.6v (5w) battery		75.95
<b>FTS-26</b> CTCSS decoder		47.95
<b>MH-29A2B</b> LCD display spkr/mic; 51R		106.95
<b>MH-30C2B</b> Speaker/microphone		45.95
<b>MH-32A2B</b> Compact lapel spkr/mic	D	30.95 24 <sup>95</sup>
<b>MH-34C2B</b> Compact lapel speaker/mic		30.95
<b>MH-35A2B</b> Spkr mic/clip/earphone jack		39.95
<b>MH-37B2B</b> Earpiece/microphone		30.95
<b>NC-34B</b> Wall charger for FNB-33		14.95
<b>NC-50</b> 1-hour dual slot charger		92.95
<b>CA-10</b> 2 charging sleeves; NC-50/11/41/51		14.95
<b>NC-55B</b> Wall charger for FNB-31		14.95
<b>NC-65B/NC-38B</b> Wall charger for FNB-38		14.95
<b>VC-22</b> Headset w/VOX		62.95
<b>YHA-54</b> Replacement 2m/440 BNC duck		16.95
<b>VX-1R</b> 500mw 2m/440 submini HT/lith ion †		349.00 199 <sup>95</sup>
<b>ADMS-1E</b> Windows programming software		39.95
<b>CN-3</b> BNC to SMA adapter		8.95
<b>CSC-71</b> Soft case for VX-1R		19.95
<b>CT-44</b> 2-pin spkr/mic adapter		12.95
<b>EDC-15</b> DC adapter		38.95
<b>FBA-20</b> Battery holder		22.95
<b>FEP-10</b> Earphone		9.95
<b>FNB-52LI</b> Extra 3.6v 700ma lith ion batt		36.95
<b>MH-34B4B</b> Speaker/mic		30.95
<b>MH-37A4B</b> Earpiece/microphone		30.95
<b>NC-66B</b> Extra 2 hour wall charger		18.95
<b>VC-25</b> VOX headset		62.95
<b>VX-5R</b> 5w 6m/2m/440 FM HT/lith ion batt		429.00 359 <sup>95</sup>
<b>ADMS-1E</b> Windows programming software		39.95
<b>CD-15</b> Charger stand (use with NC-72B)		29.95
<b>CN-3</b> BNC to SMA adapter		8.95
<b>CSC-73</b> Soft case for VX-5R		19.95

## YAESU - continued

	Reg	Sale
<b>CT-44</b> 2-pin spkr/mic adapter		12.95
<b>EDC-5B</b> DC adapter w/noise filter		26.95
<b>EDC-6</b> DC adapter; plug & wire only		7.95
<b>FBA-23</b> 2 AA cell battery case		25.95
<b>FNB-58LI</b> Extra 7.2v 1100ma lith ion batt		69.95
<b>MH-34B4B</b> Speaker/mic		30.95
<b>MH-37A4B</b> Earpiece/microphone		30.95
<b>NC-72B</b> Extra wall charger		18.95
<b>SU-1</b> Altitude/barometric pressure sensor		35.95
<b>VC-25</b> VOX headset		62.95

### ANTENNA ROTORS

<b>G-450A</b> 10 sq ft antenna rotor/5-wire		\$289.00 259 <sup>95</sup>
<b>G-500A</b> 12 sq ft elevation rotor/8-wire	D	319.00 259 <sup>95</sup>
<b>G-550</b> 12 sq ft elevation rotor/8-wire		349.00 299 <sup>95</sup>
<b>G-800S</b> Med/hvy duty 450 degree 17sq ft/5-wire		399.00 339 <sup>95</sup>
<b>G-800SDX</b> Med/hvy duty 17sq ft/presets/5-wire		499.00 429 <sup>95</sup>
<b>G-1000SDX</b> HD 450 degree 23sq ft/presets/5-wire		599.00 519 <sup>95</sup>
<b>G-2800SDX</b> HD 450 degree 34sq ft/presets/8-wire		1329.00 1139 <sup>95</sup>
<b>G-5400B</b> Light/med 11sq ft az/el//2x8-wire D		619.00 539 <sup>95</sup>
<b>G-5500</b> 11 sq ft azimuth/elevation rotor//2x8-wire		719.00 629 <sup>95</sup>

### See BELDEN for rotor cable

<b>GA-2500</b> Tower absorber joint; 450A/XL/800S/SDX		79.95
<b>GA-3000</b> Tower absorber joint; 1000SDX/2800SDX		119.95
<b>GC-038</b> Mast clamp; 450/800/1000/5400B/5500		31.95
<b>GC-048</b> Mast clamp; G-2800SDX		47.95
<b>GS-050</b> 50mm thrust bearing; mast 1½-2" ...		31.95
<b>GS-065</b> 65mm thrust bearing; mast 1½-2½"		47.95
<b>GS-23</b> Interface; G-800/1000/2700/2800SDX		356.00 299 <sup>95</sup>
<b>GS-232</b> Interface for G-5400B/5500		562.00 469 <sup>95</sup>
<b>Sep Kit</b> Separation kit for G-5400B/5500		23.95

### CONSUMER ELECTRONICS

<b>VXA-100-6/41B</b> Aviator Pro 5w air HT		\$499.00 409 <sup>95</sup>
<b>VXA-100-16/41B</b> Aviator Pilot 5w air HT/VOR		749.00 549 <sup>95</sup>
<b>VXF-10</b> Family radio service handheld w/WX		159.00 119 <sup>95</sup>
<b>CLIP-8</b> Belt clip for VXF-1	Δ	8.95 3 <sup>95</sup>
<b>EDC-15</b> DC adapter		38.95
<b>FEP-10</b> Earphone		9.95
<b>FNB-53</b> Nicad battery pack		19.95
<b>MH-34B4B</b> Speaker/mic		30.95
<b>MH-37A4B</b> Earpiece/mic		30.95
<b>NC-66B</b> Wall charger for FNB-53		18.95

## ZENITH (ZEN)

<b>A-8477</b> 75 ohm high-pass filter	D	9 <sup>95</sup>
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## zm Xpressions (ZMX)

What is your TNC doing? Book ..... \$ 15.00

## CLOSE-OUTS

<b>ADI AT-400HP</b> 5w 440 FM HT/batt/cgr/TTP		159 <sup>95</sup>
<b>AEA IDR-96</b> 5w 441.05 data Xcv/9600		329 <sup>95</sup>
<b>AEA KK-1</b> Keyboard keyer for IBM PC		149 <sup>95</sup>
<b>ALI DJ-C1T*</b> 2m 300mw cc size HT/lith ion		69 <sup>95</sup>
<b>ALI DJ-C4T*</b> 440 300mw cc size HT/lith ion		69 <sup>95</sup>
*No internal spkr DJ-C1T/DJ-C4T - must use earphone		
<b>ALI EBP-31N</b> 7.2v 1200ma nicad; DJ-G1T		69 <sup>95</sup>
<b>ALI EBP-32N</b> 12v 722ma nicad; DJ-G1T		79 <sup>95</sup>
<b>ALI EDC-52</b> Quick charger; DJ-G1T		89 <sup>95</sup>
<b>ALI EJ-16U</b> Tone squelch unit; DJ-G1T		49 <sup>95</sup>
<b>ALI EME-10</b> Headset/VOX/PTT; 160/560/580/582		49 <sup>95</sup>
<b>ALP DX-SWL-S</b> 90-13m 40' SWL sloper		49 <sup>95</sup>
<b>AME DL-1500F</b> 1500w dummy load/fan		59 <sup>95</sup>
<b>AZD PCS-9600D</b> 35w 440 FM/9600 baud		569 <sup>95</sup>
<b>B&amp;K 541</b> Component comparator		249 <sup>95</sup>
<b>B&amp;K 830</b> Autoranging capacitance meter		229 <sup>95</sup>
<b>B&amp;K 1646</b> 0-16V, 0-10A power supply		279 <sup>95</sup>
<b>B&amp;K 2831A</b> Digital bench multimeter		199 <sup>95</sup>
<b>BEN ST-3</b> Sgl lever kyr paddle, gold plate		189 <sup>95</sup>
<b>CES 410</b> Personal Patch interconnect		119 <sup>95</sup>
<b>CMT CA-350DB</b> 10/6m 2.15/6.5db 22' 7" ant		269 <sup>95</sup>
<b>CMT CMR-241</b> 2m/440 6.5' rpttr ant		109 <sup>95</sup>
<b>CMT CMX-2</b> 1.8-200MHz 200w SWR/pwr/rem head		149 <sup>95</sup>
<b>CMT CMX-3</b> 140-525MHz 200w SWR/pwr/rem head		139 <sup>95</sup>



## CLOSE-OUTS - continued

CMT CSW-20N 0-1300MHz N coax switch	59 <sup>95</sup>
CDB CP-912 900MHz dig sp spec cordless	129 <sup>95</sup>
CSY 9801 Elec voice delay Private Patch V	89 <sup>95</sup>
CSY CS-700 Simplex interconnect	219 <sup>95</sup>
CSY Private Patch V Multi-mode interconnect	349 <sup>95</sup>
CUS 20-3CD 20m, 3 el, 20' boom, 8 db	329 <sup>95</sup>
CUS 22XB 2m 22el 19.3'bm 14db circ beam/relay	199 <sup>95</sup>
CUS 617-SK Harness/pwr divider; 2 6176Bs	49 <sup>95</sup>
CUS 738XB 432 38el 14.3'bm 15.5db circ/relay	199 <sup>95</sup>
CUS AFM-4DA 2m FM 23' 4-pole antenna	89 <sup>95</sup>
CUS ARX-6 6m FM Ringo Ranger	179 <sup>95</sup>
CUS ARX-270N 2m/440 9/12 db fg type N ant	199 <sup>95</sup>
CUS ARX-270U 2m/440 9/12 db fg S0239 ant	199 <sup>95</sup>
CUS CG-144A 2m 3/4" mt Gold coil/whip only	79 <sup>95</sup>
CUS PD-2N Power divider for 2 17B2s	59 <sup>95</sup>
CUS PD-4N Power divider for 4 17B2s	79 <sup>95</sup>
CUS PS-4A Remote polarity switch	69 <sup>95</sup>
DIA HB-650 HT door mt; side wind/glv bx	49 <sup>95</sup>
HUS G7-150-4 7db 167-174 base ant	99 <sup>95</sup>
HUS G6-450-4 6db 470-478 base ant	99 <sup>95</sup>
HYG 189S GRK-88 Ground radial kit	64 <sup>95</sup>
HYG 190S RRK-88 Roof radial kit	74 <sup>95</sup>
HYG 191S 160MK-88 160m kit for 188S	134 <sup>95</sup>
HYG 216S 216SAT 2m 16el 145.9MHz bm	149 <sup>95</sup>
HYG 231S 70-31DX 430 31el bm, 24' bm	149 <sup>95</sup>
HYG 232S 215DX 2m 15 el beam, 28' bm	139 <sup>95</sup>
HYG 244S BN4000D 4kw PEP 160-10 dip balun	69 <sup>95</sup>
HYG 337S-1 V-4R 440 ground plane ant	74 <sup>95</sup>
HYG 371S Discoverer 7-1 30 or 40m rotate dipole	199 <sup>95</sup>
HYG 372S Discoverer 7-2 40m 2 el 23' boom	454 <sup>95</sup>
HYG 373S Discoverer 7-3 3rd el; 372S; 35' boom	279 <sup>95</sup>
HYG 381S 19PD 80-10 233' 1-band port dipole	199 <sup>95</sup>
HYG 383S 5BDQS 5-band 94' trap vertical	159 <sup>95</sup>
HYG 2400-155 62400155 Bm mic/headset	59 <sup>95</sup>
HYG V-3R 220 ground plane antenna	79 <sup>95</sup>
HYG V-6R 6m 3db deluxe base antenna	149 <sup>95</sup>
ICO AH-2A Auto antenna tuner for whip/wire	199 <sup>95</sup>
ICO BC-35 Drop-in rapid charger	119 <sup>95</sup>
ICO BP-2 425ma 7.2v long life battery	49 <sup>95</sup>
ICO BP-5 425ma 10.8v high power battery	79 <sup>95</sup>
ICO BP-5A 425ma 10.8v direct chg batt	79 <sup>95</sup>
ICO BP-7 425ma 13.5v 5w battery	99 <sup>95</sup>
ICO BP-8 800ma 8.4v long life battery	89 <sup>95</sup>
ICO BP-70 270ma 13.2v batt; 2GAT/32AT	69 <sup>95</sup>
ICO BP-82 7.2v 300ma battery	49 <sup>95</sup>
ICO BP-83 7.2v 600ma battery	69 <sup>95</sup>
ICO BP-84 7.2v 1000ma battery	89 <sup>95</sup>
ICO BP-101 700ma 7.2v batt; Delta-1A	49 <sup>95</sup>
ICO BP-131 900ma 7.2v batt/mic; W21	69 <sup>95</sup>
ICO BP-132 600ma 12v batt/mic; W21	89 <sup>95</sup>
ICO BP-132A 600ma 12v battery/mic	89 <sup>95</sup>
ICO BP-160 700ma 7.2v battery	39 <sup>95</sup>
ICO BP-171 4.8v 700ma battery	49 <sup>95</sup>
ICO CR-64 High stab osc xtal; 728	119 <sup>95</sup>
ICO FL-32A 500 Hz CW filter; R-71A	99 <sup>95</sup>
ICO FL-63A 250 Hz CW filter; R-71A	89 <sup>95</sup>
ICO HM-55A Speaker/mic w/TTP	79 <sup>95</sup>
ICO IC-26XAT/HP 7w 2m HT/batt/cgr/TTP	229 <sup>95</sup>
ICO IC-281H 50w 2m FM/TTP/9600 baud	199 <sup>95</sup>
ICO IC-481H 35w 440 FM/TTP/9600 baud	399 <sup>95</sup>
ICO IC-F10-1 2w 146-174MHz 24 ch HT	289 <sup>95</sup>
ICO UI-7 AM/FM module for IC-728	109 <sup>95</sup>
ICO UI-8 FM unit; R-72A	59 <sup>95</sup>
ICO UT-67 Tone squelch unit	49 <sup>95</sup>
ICO UT-70 Tone encoder/decoder; D1A	99 <sup>95</sup>
ICO UT-85 Tone squelch unit	69 <sup>95</sup>
INT dspGOLD Software for AEA DSP-2232	89 <sup>95</sup>
JPS NF-60 Auto DSP audio spec notch filt	99 <sup>95</sup>
JPS NIR-10 Dix noise/notch DSP BP filter	189 <sup>95</sup>
JPS NRF-7 Noise reducer and filter unit	159 <sup>95</sup>
JSC JRR-520 5-wire rotor cbl	44 <sup>95</sup>
KAN Data Engine TNC w/no modems	199 <sup>95</sup>
KAN Data Engine w/DE-1200 modem	249 <sup>95</sup>
KEN BC-15A Rapid cgr; PB-13/14/17/18	29 <sup>95</sup>

Reg Sale

## CLOSE-OUTS - continued

KEN BT-10 6 AA alk batt case; TH-235A	6 <sup>95</sup>
KEN DFK-3B 9' sep disp cable kit; TM-733A	29 <sup>95</sup>
KEN DFK-4B 13' rem cable kit; TM-733A	39 <sup>95</sup>
KEN DFK-7A Dlx 22' rem cbl kit; 255A/455A	74 <sup>95</sup>
KEN DFK-7B Dlx 22' rem cbl kit; TM-733A	59 <sup>95</sup>
KEN DTU-2 Digital paging unit; TM-541A	19 <sup>95</sup>
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KEN ME-1 Memory expansion; TH-28A	9 <sup>95</sup>
KEN PB-32 600ma 6v battery	19 <sup>95</sup>
KEN PB-36 7.2v 950ma nicad; TH-235A	19 <sup>95</sup>
KEN PB-37 12v 950ma (5w) nicad; TH-235A	19 <sup>95</sup>
KEN SC-33 Soft case; TH-28A/48A/PB-13/BT-8	9 <sup>95</sup>
KEN SC-34 Soft case; TH-28A/48A/PB-17/18	19 <sup>95</sup>
KEN SC-37 Soft case; TH-22/42AT/PB30/32	19 <sup>95</sup>
KEN SC-41 Soft case; TH-79A(D) w/PB-32	9 <sup>95</sup>
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KEN TH-42AT 2.5w 440 FM HT/batt/cgr/TTP	289 <sup>95</sup>
KEN UT-10 10w 1.2 GHz module; TS-790A	549 <sup>95</sup>
KEN VP-1 Hvy duty chrome spg, bumper mt	19 <sup>95</sup>
KEN YG-455C-1 500 Hz CW filt; TS-450/690	149 <sup>95</sup>
KEN YG-455CN-1 250 Hz CW filter; TS-950SDX	99 <sup>95</sup>
KEN YK-88A-1 AM filter; R-5000	99 <sup>95</sup>
KEN YK-88CN 270Hz CW filter; R-5000	69 <sup>95</sup>
KEN YK-88S-1 2.4 KHz SSB filt; TS-450/690	99 <sup>95</sup>
KEN YK-88SN 1.8 KHz SSB filt; R-5000	129 <sup>95</sup>
KEN YK-455C-1 500 Hz CW filter; TS-140S	99 <sup>95</sup>
LAR AD-2/70 100w 2m/440 duplexer	79 <sup>95</sup>
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MAG GPS-4000XL/12 12ch GPS Rcvr w/case	219 <sup>95</sup>
MAG Meridian XL GPS/plot/detach ant	269 <sup>95</sup>
MAX FRS-114 FRS handheld	49 <sup>95</sup>
MFJ 47C Mailbox 512K mem; 1270/1274	89 <sup>95</sup>
MFJ 217 SWR analyzer, 30-50 MHz	24 <sup>95</sup>
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## DEMOS & RETURNS

<b>ADI</b> AR146 2M XCVR.....179.95 m AT200 2W 2M HT.....119.95 f AT201HP 2M HT.....169.95 mw AT201HP/CPB262 2M HT.....139.95 m AT400HP 440 HT.....179.95 f AT600/HP 2M/440 HT.....242.95 m PCA145 CIG CABLE.....12.95 m PCA600 CIG CABLE.....13.95 m <b>AEA/TIMEWAVE</b> AC4 POWER SUPPLY.....17.95 m HR-1 HT ANTENNA.....26.00 w IH CBL HT-TNC.....14.95 v KK1 KEYBOARD KEYS.....179.95 m WEFAX256.....116.95 v <b>AES</b> SB115 AC/DC CONVERTER.....17.95 v SB151 CONVERTER.....19.95 m <b>ALINCO</b> DJC5T 2M/440 HT.....159.95 m DJG5TH HT/AA CASE.....279.95 m DJG5TH 2M/440 HT.....259.95 mw DIS46T FRS HT.....99.95 m DJX10T COMM RCVR.....319.95 m DJ191TH 2M HT.....159.95 m DRM06TH 6M XCVR.....239.95 m DR140TQ 2M/440 XCVR.....169.95 m	DX70T HF/6M.....625.95 w DX70TH HF/6M.....799.95 mf EBP36N BATTERY.....61.95 v EDC16 DC CABLE.....18.95 f EDC34 DESK CHARGER.....69.95 m EDC60 QUICK CHARGER.....71.95 v EDS2 CABLE.....19.95 f EDS4 CABLE.....24.95 f EDS7 MIC/ADAPT.....9.95 v EJ24U TONE UNIT.....74.95 f EME16 MIC/EAR.....13.95 m EME17 BOOM EARPHONE MIC.....22.95 v EMS8Z SPKR/MIC.....34.95 m ESC18 CASE.....12.95 m MB110 BRKT.....17.95 v <b>ALPHA DELTA</b> HV LIGHTNING PROTECTOR.....35.95 v <b>AMECO</b> HP300T HI PASS FLT.....10.95 mv P12T DC PS FOR PT3.....8.95 v TPA PREAMP.....68.95 v <b>AMERITRON</b> ALS600 AMP/PS.....1,016.95 v AL1200 1.5KW AMP.....1,799.95 f ARB700 RELAY.....24.95 mf QSK5 T/R SWITCH.....299.95 m RCS4 ANTENNA SWITCH.....116.95 v RCS8V SWITCH.....125.95 w D & R's continued next page
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# DEMOS & RETURNS

Save money on New Equipment that has been either Demonstrated, on Display or Returned and Restocked. The cartons are no longer factory sealed, but each has been checked by our Service Department and still has it's New Equipment Warranty in effect. Used Equipment Policies described on the previous page do not apply, but All AES New Equipment policies do apply.

## Demos & Returns - continued

<b>ARRL</b>	D510 COUNTER.....119.95 f	PCR1000 RCVR.....359.95 m	1285 IBM SOFTWARE.....14.95 m	PC122XL CB XCVR AM/SSB.....116.95 v
120 ADV LICENSE MANUAL.....10.95 v	<b>DRAKE</b>	PS55 POWER SUPPLY.....209.95 v	1287BD DISK ONLY.....19.95 m	PC66XL CB XCVR.....79.95 m
215 GGTE MORSE SOFT.....18.95 v	R8A SWL RCVR.....899.95 mv	PS85 SWITCHING 20A.....269.95 w	1289 MULTICOM.....24.95 m	PR0340XL CB HT.....47.95 f
<b>ASTATIC</b>	R8B SWL RCVR.....1,079.95 m	R1-15 BLOCKED.....348.95 mf	1289M 3 1/2 IBM.....53.95 mv	PR0350XL CB HT.....89.95 mv
M575MG HAND MIC.....43.95 f	SW2 SWL RCVR.....449.95 m	R10-05 BLOCKED.....319.95 mwf	1289W MULTICOM/CABLE/WIN.....53.95 v	<b>VALOR</b>
TUG9 STAND.....44.95 f	SW8 SWL RCVR.....719.95 f	R100 RCVR.....764.95 m	1290D SOFTWARE.....19.95 m	MM3401B MAGNET MOUNT.....49.95 m
<b>ASTRON</b>	TR270 2M XCVR.....499.95 m	R71A SWL.....999.95 wfv	1305 ADAPTOR.....9.95 m	PHF6 6MTR MOBILE ANT.....20.95 v
RS10A POWER SUPPLY.....62.95 v	<b>GAMBER-JOHNSON</b>	<b>ISOTRON</b>	1312B 12V/300 ADAPT.....10.95 v	PHF75 ANTENNA.....24.95 m
RS4L POWER SUPPLY.....44.95 m	SS100 MOUNT.....59.95 m	20/15/10COMB ANTENNA.....169.95 m	1312C POWER SUPPLY.....7.95 m	<b>VECTRONICS</b>
V535M POWER SUPPLY.....169.95 m	<b>GARMIN</b>	<b>JPS</b>	1702B 2POS/UHF.....19.95 w	AT100 ACT ANT.....64.95 mv
<b>AZDEN</b>	GPS38 GPS RCVR.....159.95 f	NF60 DSP/NOTCH FILT.....99.95 v	205 RESIS METER/NO MAN.....69.95 m	HFT1500 TUNER.....359.95 w
AZ21 2M HT.....179.95 m	<b>GENESYS</b>	NIR-10 FILTER.....179.95 m	224 2M FM SIG ANALYZER.....134.95 v	HPF1 FILTER.....14.95 m
PCS7800H /NO BCKT.....259.95 m	CT221KE EARTALK.....49.95 m	<b>KANTRONICS</b>	259 ANALYZER.....179.95 m	LP2500 LOWPASS FILT.....71.95 v
PCS7800H 10M FM.....269.95 f	T05K THROAT/MIC.....39.95 m	DATAENGINE.....206.95 w	287 SPKR/MIC.....14.95 m	PM30UV VHF/UHF MTR.....79.95 v
PTT01 PTT SWITCH.....34.95 m	<b>GROTHE</b>	HM II+ SOFT.....79.95 mf	292K EAR/MIC KENWOOD.....15.95 v	VC300DLT ANT TUNER.....134.95 v
SDX514W SPK/MIC.....44.95 m	VS2 SIREN.....69.95 m	<b>KENWOOD</b>	346 FREQ COUNT.....89.95 w	VC300M MOB AT.....89.95 m
<b>B&amp;K</b>	<b>GRUNDIG</b>	BC15 CHARGER.....26.95 mw	401C KEYSR/AS-IS/WORKS.....34.95 m	<b>VIBROPLEX</b>
114A MULTIMETER.....34.95 m	YACHTBOY 230 SWL.....71.95 m	BT11 BATT CASE.....16.95 w	407C KEYSR.....59.95 m	100 ORIG PRESENTATION.....239.95 m
2703B METER.....29.95 f	YACHTBOY 305 SWL RCVR.....99.95 f	BT11 BATT CASE.....16.95 w	411 CODE TUTOR.....44.96 w	<b>WELLER</b>
AC1.830 ANTENNA.....152.95 v	<b>HEIL</b>	DFK4 CABLE.....49.95 f	4114 POWER PACK.....58.95 v	WTCPT STATION.....89.95 m
AP10.....62.95 w	AD11 CABLE.....12.95 v	DFK4C 13' REMOTE KIT.....57.95 v	415B CW ADAPTOR.....44.95 w	<b>W2AU</b>
AS40 40-10 TRAP DIPOLE.....139.95 ww	AD1K ADAPTER.....12.95 m	IF10D INTERFACE.....80.95 v	422C PADDLE/KEYER.....116.95 w	BEAM BALUN.....19.95 m
FL10/1500 LOWPASS FILTER.....69.95 m	CC1K HM10 CABLE/KEN.....22.95 v	KNB7A 800MA 12V.....69.95 m	447 SLIMLINE KEYSR.....71.95 v	<b>W5YI</b>
<b>BAYGEN</b>	HMP PREAMP.....49.95 w	KQ78 TONE BOARD.....44.95 m	45B 128K RAM IC.....9.95 f	NCVS N/C VIDEO (OLD).....15.00 v
FPA3 ADAPTER.....9.95 v	HMPM PREAMP.....49.95 m	K41A CHRGR.....78.95 wf	452 KEYBD KEYSR.....107.95 w	<b>YAESU</b>
HEADPHONES.....12.95 v	HS1 HEIL HAND SWITCH.....18.85 w	MC44DM TTP MIC.....69.95 m	462B MULTIREADER.....152.95 v	NC50 DUAL SLOT CHARGER.....79.95 f
<b>BENCHER</b>	PROMICRO5 HDST.....89.95 fv	MC90 MIC.....214.95 w	5063 CABLE.....17.95 m	ADMS2D SOFT.....35.95 w
YA1 LOW PASS.....59.95 m	<b>HUSTLER</b>	PB34 5W BATT.....79.95 mf	5080 MFJ-YAE 8P CBL.....9.95 m	CA10 CHG ADAPT.....11.95 m
<b>BUCKMASTER</b>	G6440 VERT ANTENNA.....125.95 v	PG3B NOISE FLTR.....26.95 v	5080MYV TNC CABLE.....12.95 m	CLIP1 BATTERY CLIP.....4.95 m
HAMCALL CD-ROM.....14.95 v	G7-220 ANTENNA.....134.95 m	PG3E CIG CORD.....19.95 m	5084 MFJ TNC/ICO 8P.....13.95 mw	CN3 BNC/SMA ADAPTOR.....7.95 mv
<b>CENTAUR</b>	MBM MAG MT.....17.95 w	PS40 POWER SUPPLY.....179.95 mw	5086 MFJ KEN/ALI 8P.....11.95 mw	CSC66 SOFT CASE.....17.95 m
B41Y1050 BEAM BLN/SCUFF.....54.95 m	SSM3 SPRING.....19.95 m	SC41 CASE.....21.95 v	5086YH KAM HF KEN 8P.....12.95 v	CSC67 SOFT CASE.....16.95 v
CP1 PULSE TUNER.....49.95 m	<b>HYGAIN</b>	SMC34 SPKR MIC.....35.95 mv	5383K INTERFACE CABLE.....44.95 v	CSC68 CASE FT50.....13.95 mf
DEM CES SS168 PATCH.....199.95 m	303D ROTOR/DIGITAL.....659.95 m	THG71A 2M/440 HT.....239.95 mwf	6413 CHGR.....44.95 m	CSC69 FOR FNB40.....13.95 m
<b>CHANNEL MASTER</b>	5146710 MAST ADAP.....69.95 m	TH22ATH 2M HT.....199.95 m	641K CHGR/KENWOOD.....44.95 v	DV52 DIG REC UNIT.....199.95 m
5095A SCANNER ANT.....39.95 m	62400155 HEADSET.....79.95 v	TH79A(D)H 2M/440 HT.....339.95 m	78 REMOTE FOR MFJ492.....17.95 v	FNB31 600/4.8 BAT.....41.95 mv
<b>CHEROKEE</b>	<b>ICOM</b>	TS790A 2M/440 XCVR.....1,299.95 f	781 DSP FILTER.....99.95 m	FNB42 BATTERY.....56.95 m
AH100 AM/SSB HT.....249.95 m	AD51 CHARGE ADAPT.....9.95 m	TS950SDX HF XCVR.....3,499.95 f	8100W S/W RCVR.....71.95 w	FP700 POWER SUPPLY.....114.95 m
CHEROKEE AH27 CB HT.....107.95 w	AD56 CHG ADAPT.....16.95 f	<b>KLM</b>	860 SWR/WATTMETER.....39.95 v	FRG100B 1.8-30 MHZ RCVR.....557.95 v
CHEROKEE AH27F CB HT.....107.95 w	AH2B BPR MT/WHIP.....233.95 f	CS2 CIR SWITCH.....39.95 m	903 6M TUNER.....44.95 v	FTS-12 TONE BOARD.....53.95 v
CHEROKEE CBS1000 CB.....279.95 f	AH4 TUNER.....289.95 m	2M14C 2M BEAM.....159.95 m	912 REMOTE BALUN.....44.95 f	FTS27 TONE BOARD.....42.95 f
<b>COBRA</b>	AT150 100W TUNER.....399.95 m	<b>LARSEN</b>	914 TUNER EXTENDER.....49.95 f	FT10/41BA16S.....242.95 v
FRS200 FRS HT.....89.95 m	AT180 TUNER.....449.95 v	KD42/70 DUAL DUCK.....24.95 mv	924 440HZ TUNER.....62.95 v	FT10/41BA16S 2M HT.....249.95 f
HH35 CB HT.....44.95 f	BC119-11 DESK CHGR.....85.95 f	NMOK MOUNT.....9.95 v	9440X 40M XCVR.....206.95 w	FT23R 2M HT/TONE.....199.95 m
HH36T CB HT.....59.95 m	BC79 CHARGER.....119.95 w	NMOMM MAGNETIC MT.....26.95 v	945E TUNER.....89.95 m	FT23R/HP HT.....179.95 m
HH40 CB PORTABLE.....53.95 w	BP121 7.2V/400MA.....34.95 v	NMOTLP TRUNK LID MT.....23.95 v	969 TUNER.....161.95 m	FT33R 220 HT.....269.95 mv
SR11 SCANNER.....59.95 f	BP157 900MA 7.2V.....59.95 w	NMO150B 2M ANT.....29.95 m	989C TUNER.....289.95 v	FT40/41BA16D 440 HT.....259.95 f
21LTDTST CB.....89.95 m	BP195 BATT.....34.95 m	NMO150TLM 2M ANT.....45.95 v	<b>MIDLAND</b>	FT411E 2M HT/2 WATT.....224.95 m
25LTDWX CB.....98.95 m	BP199 BATTERY.....63.86 w	<b>MAGELLAN</b>	75510 FRS.....89.95 mf	FT50RD/41B 2M/440 HT.....259.95 v
<b>COM SPEC</b>	BP7 13.2V/450MA.....69.95 m	GPS2000 GPS RCVR.....129.95 m	75510XLB FRS.....80.95 w	FT51R/HP 2M/440 HT.....339.95 m
TE32 CTCSS ENC.....44.95 w	BP81 BATTERY.....39.95 m	GPS2000XL GPS RCVR.....134.95 mw	CCR708A RCVR.....629.95 m	FT736 2M/440 XCVR.....1,349.95 w
<b>COMET</b>	CK70 DC CABLE.....35.95 w	0069038000 PC KIT.....89.95 m	<b>STANDARD</b>	GS-050 THRUST BEARING.....27.95 v
CF360A DPLXR/LEADS.....62.95 v	CP10 CABLE.....9.95 m	<b>MAHA</b>	CLC151 CASE.....14.95 v	G1000SDX ROTOR.....467.95 fv
<b>COMET</b>	CP12L CIG CABLE.....32.95 w	MHA301 DOCK BOOSTER.....104.95 m	CMB600 CLIP.....9.95 m	G500A ROTOR.....249.95 m
RS2 GUTTER MOUNT.....19.95 v	CSWHH SOFT W/CABLE.....45.95 w	MHB132 BATTERY.....49.95 m	CNB173 BATT.....84.95 m	LCC10S CASE.....27.95 m
SB825NMO 2M ANT.....40.45 w	FL32A CW FILTER.....89.95 m	MHB180 BATTERY.....44.95 m	CSA181A CHARGER.....69.95 f	MD100A8X MIC.....119.95 m
5D4N ROOF MOUNT.....27.95 v	FL96 SSB FILTER.....149.95 m	MHB8P 8.4/1.8 NIMH.....59.95 m	CTN5600 TONE UNIT.....49.95 m	MH19A2B EARPC/MIC.....26.95 m
<b>COURIER</b>	HM12 SCANNING MIC.....67.95 v	MHC777 DESK CHARGER.....44.95 mf	C108A 2M HT.....149.95 mw	MH34B4B SPKR/MIC.....27.95 m
M54 5W W/151.625.....179.95 mf	HM46 SPK/MIC.....39.95 f	MHFN812 12/900 NIMH.....49.95 m	C168A 2M HT.....249.95 m	MH37A4B SPKR/MIC.....27.95 m
U22/A UHF HT.....119.95 mf	HM65 SPK/MIC.....66.95 v	MHS11 ADPT/A302.....6.95 m	C178A 2M/440 HT.....314.95 m	MH39 MIC (FT8500).....89.95 m
U22/B UHF HT.....119.95 m	HM90A WIRELESS MIC.....119.95 mv	MHSYA ADAPTER.....9.95 m	C188A 2M HT.....229.95 f	NC50 CHGR.....79.95 f
<b>CONNECT SYSTEMS</b>	HM92A MIC.....89.95 m	MH101Y2 CHGR.....59.95 m	C508A 2M/440 HT.....229.95 mfv	NC55B WALL CHGR.....11.95 v
CS800 DPLX PATCH.....329.95 mf	HP4 HEADPHONES.....24.95 m	MH24A CHARGER.....10.95 w	C510A (SCRATCH ON DISPL.....239.95 f	NC60B CHGR.....12.95 v
<b>CUSHCRAFT</b>	HS51 HEADSET.....84.95 m	<b>MAXON</b>	C558A 2M/440 HT.....449.95 mfv	RH1 RUBBER PROT/BLACK.....6.95 v
A148SK STACK HARNESS.....39.95 v	ICQ7A 2M/440 HT.....154.95 m	FRS114 FRS HT.....44.95 m	CT178DA 2M/440 XCVR.....599.95 mf	SP5 EXTERNAL SPEAKER.....129.95 v
LAC4NH ARREST.....39.95 v	ICQ7ABC 2M/440 HT.....159.95 m	MX49FX 49 MHZ XCV.....44.95 mf	<b>TRIPP LITE</b>	SP7 SPEAKER.....34.95 f
PS4A REMOTE POLARITY S.....69.95 m	ICT2A 2M HT.....134.95 w	MX49HX 5CH 49MHZ.....44.95 mv	ISOBAR8 ULTRA.....71.95 v	SP8 SPEAKER.....143.95 v
26B2 2M ANT.....269.95 w	ICT7A/HP 2M/440 HT.....206.95 m	PC50 40MHZ HT.....44.95 m	PERS450.....149.95 f	VXA100G/41B AIRCRAFT HT.....319.95 m
<b>DAIWA</b>	ICT7H 2M/440 HT.....251.95 w	49SX/B 49MHX HT.....24.95 m	<b>UNIDEN</b>	VXF1 FRS HT.....89.95 mv
CN465M SWL METER.....69.95 f	ICT8A 2M/440 HT.....299.95 mv	<b>MFJ</b>	BCT10 SCANNER.....129.95 f	VXR5000VADC 2M RPTR.....1,099.95 f
<b>DAVIS</b>	ICW32A 2M/440 HT.....279.95 m	1020B ACT RX ANT.....62.95 ww	BCT12 BEARTRACKER.....179.95 v	VX1R 2M/440 HT.....206.95 w
7852 WEATHER STATION.....69.95 f	IC2GAXT 2M 3W HT.....189.95 wfv	1026 NOISE CANX ANT.....139.95 m	BCT2 BEAR TRACKER.....89.95 m	XF10.9M20201 CW FILTER.....109.95 f
<b>DIAMOND</b>	IC281H 2M MBL.....179.95 wf	1040B RCVR PRESELECTOR.....89.95 v	BC120XLT SCANNER.....134.95 w	YF112C CW FILTER.....107.95 v
C101 MOUNT/CABLE.....26.95 v	IC706 HF-2M XCVR.....799.95 v	112 CLOCK.....19.95 f	BC178XLT DESK SCANNER.....119.95 f	
K400CNMO ANT MT.....59.95 m	LC123 CASSA/ICZ1A.....27.95 v	1214PC INTERFACE.....114.95 m	BC220XLT SCANNER.....179.95 w	
K540 MOUNT.....29.95 m	LC125 CASE/ICT22A.....27.95 v	1224 INTERFACE.....89.95 m	BC235XLT SCANNER/REFURB.....199.95 m	
K600M MOUNT.....51.95 w	LC128 CASE/ICW32A.....34.95 w	1225 RX INTERFACE.....59.95 f	BC3000XLT 400CH.....359.95 ww	
K601M HIDE-TRUNK.....62.95 ww	LC137 CASE.....34.95 w	1272B TNC/MIC SWITCH.....35.95 mv	BC350A SCANNER.....109.95 m	
SRH815 ANT/SMA.....39.95 v	MB16 HT MOUNT.....14.95 m	1272MX TNC/MIC SW.....35.95 f	BC60XLT1 SCANNER.....89.95 m	
SX100 HF-6M GTR.....134.95 mf	M10A MARINE HT.....159.95 m	1272MYH TNC/MIC SW.....35.95 v	BC700A SCANNER.....152.95 mv	
<b>DIGIMAX</b>	M2 VHF MARINE HT.....149.95 mw	1278B TNC/FACTOR.....249.95 f	BC760XLT SCANNER.....197.95 m	
D500 COUNTER.....109.95 f	OPC598 23' EXT CABLE.....65.95 v	1278B/DSP TNC.....314.95 m	BC80XLT SCANNER.....134.95 m	

Up-to-date Used & Demo lists available on our website: [www.aesham.com](http://www.aesham.com)



# AOR

## AR-8200B Wide Range Receiver

500kHz to 2040MHz coverage (U.S. version cell-blocked) • 100 memory channels (20 banks) • Computer control and programming with optional cable (free control software from AOR web site) • "All Mode" reception includes "super narrow" FM, wide and narrow AM, USB, LSB, CW and standard AM and FM • True carrier reinsertion in SSB, includes 3kHz SSB filter • Optional internal slot cards for memory expansion (up to 4,000), CTCSS squelch and search, tone eliminator, voice inverter and record audio (saves up to 20 seconds of received audio) • Tuning steps programmable in multiples of 50Hz in all modes and 8.33kHz airband step • Noise limiter and attenuator • Band activity "scope" display with "save trace" capability • Four-way side panel rocker switch allows one-hand operation • Large display includes A and B VFO frequencies and signal strength meter • Battery saver and with low battery indicator • 4 AA Ni-Cd batteries supplied, also uses standard AA's and external 12V DC ..... **\$549<sup>95</sup>**

500KHZ to 1300MHZ (cellular blocked) • AM, NFM (Narrow Band FM), and WFM (Wide band FM) • 500 memory channels (5 banks x 100 channels) • 25 scan search banks • Speed: 20 channels per second • Twelve channel steps • Preset 21 frequency band settings • Built-in voice de-scrambling function • Automatic squelch settings • Monitor function for weak signals • Built-in S-meter • Back-lit keypad and display • Includes antenna, two alkaline batteries, hand-strap, manual • 2.4" w x 4.2" h x 1.2" d, 5.4 oz ..... **\$239<sup>95</sup>**

## AR-16B Wide Band Receiver

500KHZ to 1300MHZ (cellular blocked) • AM, NFM (Narrow Band FM), and WFM (Wide band FM) • 500 memory channels (5 banks x 100 channels) • 25 scan search banks • Speed: 20 channels per second • Twelve channel steps • Preset 21 frequency band settings • Built-in voice de-scrambling function • Automatic squelch settings • Monitor function for weak signals • Built-in S-meter • Back-lit keypad and display • Includes antenna, two alkaline batteries, hand-strap, manual • 2.4" w x 4.2" h x 1.2" d, 5.4 oz ..... **\$239<sup>95</sup>**

# YAESU

## FRG-100B High Performance Communications Receiver

Covers 50kHz to 30MHz - CW, SSB, AM modes; FM optional. Tuning steps: CW/SSB 10/100Hz; AM/FM 100/1000Hz. Fifty fully-tunable memory channels store frequency, mode and filter selection. Two additional band edge memories allow scanning between two programmable limits. Multi-function scanning (memory, band selectable group, priority) with carrier or time-delay resume enables convenient searching for new stations, or scanning within a known band. Adjustable SSB carrier offset, selectable AGC rate, noise blanker, all mode squelch, RF attenuator, twin 12 and 24 hour programmable clocks with on/off timer and sleep-timer, CAT system for PC control. Bright backlit LCD readout with adjustable control. 120/240 VAC or DC 12-14V @ 1.2A maximum 9 3/4" w x 3 3/4" h x 9 3/4" d, 6.6 lbs (See Price Guide for opt. filters and hi-stability oscillator) **\$619<sup>95</sup>**

# SONY

## ICF-SW07 WORLD BAND RECEIVER™ RADIO

Preprogrammed replaceable EEPROM memory chip • PLL synthesized tuner • Preset/direct/manual/scan tuning • 10 key direct access with 1kHz step tuning • 80 memory presets • "My Memory" button for favorite preset stations • Editable labels (station and city name) • Worldtime clock • Dual standby timer/sleep timer • Line out (recording output) jack • Active antenna jack • 5 1/2" x 3 3/4" d x 1 1/4" with lid closed • Supplied with active antenna, 120V AC adaptor and handbook ..... **\$399<sup>95</sup>**

# SANGEAN

**ATS-303** PLL synthesized. 13 bands, covers 2.3 to 7.3 & 9.5 to 26.10MHz. AM, FM; FM stereo with headphones. Selectable continuous tuning across frequency range and/or shortwave band. Time & frequency display, auto or manual station search, 20 station memories. Large LCD display, tuning LED. Clock with radio or buzzer alarm & adjustable sleep timer. MW 9K/10K switch for overseas. Low battery icon. Requires 4 "AA" batteries or ext. 6V DC. 6 1/2" w x 4 3/4" h x 1 3/4" d, 15 oz ..... **\$89<sup>95</sup>**



**SR-77** Miniature AM/FM & FM Stereo Portable Receiver with Deep Bass Boost feature. Uses single "AAA" battery. Only 3" w x 1 1/2" h x 3/8" d. No speaker, comes with Stereo earphones ..... **\$34<sup>95</sup>**

**ATS-818CS** (left) World Band Receiver with Programmable Cassette Recorder 16 bands, continuous coverage 50kHz-30MHz. AM/SSB/CW/FM modes; stereo via headphones, 45 memory presets. Tuning methods: Direct input, auto or manual scan, memory recall, rotary dial. AM wide or narrow filter, tone and RF gain controls, signal strength and battery indicator. Programmable cassette recorder, play and record LED indicator, auto-stop feature. Clock with dual time display, alarm and sleep timer. Uses seven "AA" batteries (not included). Includes AC adapter and external antenna adapter. 11 1/2" w x 7 3/4" h x 2 3/4" d, 5 lbs ..... **\$229<sup>95</sup>**

**ATS-818** (right) World Band Receiver All features of the ATS-818CS, except cassette recorder ..... **\$179<sup>95</sup>**

**ATS-909** FM-Stereo/MW/LW/SW PLL Synthesized Receiver Five tuning methods: Direct Frequency, Autoscanner, Manual, Memory Recall and Rotary, 307 memories. Stereo via earphones, SSB reception. MW 9k/10k switch. AM Wide/Narrow filter and FM mono/stereo selector. Dual time with three timers and sleep timer. Clock feature displays 42 world city times. RF gain/tone controls. Lock switch, recorder output jacks, battery and signal strength indicator. Uses four "AA" batt. or 6V DC; AC adapter incl. 8 1/2" w x 5 3/4" h x 1 3/4" d, 1.9 lbs.. **\$279<sup>95</sup>**

**ATS-606A** Compact Digital All Band World Receiver Continuous ALL BAND coverage 153kHz to 30MHz. AM/FM (FM stereo with earphones). 54 memories, manual or keypad tuning, 1kHz/step fine tuning, scanning, LCD display. Dual time clock and sleep timer. 5 3/4" w x 3 3/4" h x 1 3/4" d..... **\$169<sup>95</sup>**



**DT-200V** Broadcast & TV Band Receiver (left) • Fits in shirt pocket or clips to belt. Covers AM and FM broadcast bands (FM stereo via headphone), plus the audio portion of TV channels 2 to 13. LCD display, up and down tuning buttons, auto-scan, 19 memories, automatic shut-off, built-in speaker. Belt clip and stereo earphones included. Uses two "AA" batteries. 4 3/4" h x 2 3/4" w x 3/4" d, 5 oz ..... **\$79<sup>95</sup>**

**ATS-404** Full Performance, Full Featured Digital, AM/FM Stereo Shortwave Receiver CONTINUOUS COVERAGE - tunes continuously all shortwave bands and any frequency in between. AM reception with 9k/10k switch, FM plus FM stereo with earphones. Keypad entry and auto/manual search buttons, 45 memory presets, auto memory scan. Illuminated LCD display, tone control, lockswitch. Dual time (12/24 hour) clock and adjustable sleep timer with new Human Wake System. Carrying case and stereo earbuds included. Uses four "AA" batteries 6 1/2" w x 4" h x 1 1/4" d..... **\$99<sup>95</sup>**

# GRUNDIG

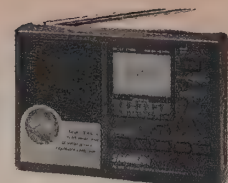
**YACHT BOY 400P** Covers 1.6 to 30MHz, all SW bands, FM broadcast band (stereo with earphones), AM and long wave broadcast bands. Direct keypad frequency entry or scan tuning with 40 memories. SSB reception with fine tuning control, high-low tone switch. Tilt stand, telescoping antenna. Multi-function backlit LCD display shows dual zone 24 hour time, frequency, band and signal strength. Dual selectivity. Automatic turn-on and sleep timer. Includes stereo earphones, external reel-up antenna for shortwave. Includes carrying pouch and AC adapter. Requires (6) "AA" batteries 4 1/2" h x 7 3/4" w x 1 3/4" d, 1 1/2 lb. **\$189<sup>95</sup>**



**TRAVELLER II** Covers AM/FM broadcast and the 19, 25, 31, 41, 49 meter short-wave bands. Multi-function LCD display, pushbutton and slide controls, tuning indicator. Clock with travel alarm and World Time selection switch; select a city and read the time! Built-in telescoping and ferrite antennas. 2" speaker, jacks for earphones. Uses (3) "AA" batteries (included). 5 1/2" w x 3 3/4" h x 1 1/4" d..... **\$69<sup>95</sup>**

**TRAVELLER III Digital** Covers AM & FM broadcast bands with FM stereo via headphones, & 13 shortwave bands. LCD display, direct entry tuning, 20 preset mem. Quartz alarm clock, AC adapter supplied. Requires (3) "AA" batteries. 5 1/2" w x 3 3/4" h x 1 1/4" d.. **\$119<sup>95</sup>**

**Mini-World 100** World Band Pocket Radio (right) Puts the world in your pocket! Covers AM/FM and 6 shortwave bands. Built-in speaker, telescoping and ferrite bar antennas, LED indicator. Includes earphones and belt clip. Uses two "AA" batteries. Only 4" h x 2 1/2" w x 3/4" d..... **\$49<sup>95</sup>**





# DRAKE

**R-8B Communications Receiver** • Covers 10kHz–30MHz & 35–55MHz with the optional VHF converter. Alpha-numeric display, kHz & MHz modes; dual VFOs; 1000 memories; multi-function scanning; AM/FM RTTY/CW/LSB/USB modes; 5 voice bandwidth filters. Built-in receive preamp/attenuator and noise blanker. IF shift and notch. S-meter; dual time zone clock; passband offset; selectable AGC; built-in speaker; dual timers, multiple antenna inputs; sequential tuning; 3 selectable tuning step sizes. Direct entry of mode and bandwidth selection via keypad. Selectable sideband, synchronous AM detector. RS-232 computer control, optional interface software for MS-DOS computers. Connections for external speaker and tape recorder. Multi-voltage power supply. 13 $\frac{1}{2}$ "w x 5 $\frac{1}{2}$ "h x 13"d, 13 lbs ..... **\$1199<sup>95</sup>**



**1590 VHF Converter**  
Low VHF (35–55MHz & High VHF (108–174 MHz) coverage when installed in the R-8B..... **\$219<sup>95</sup>**



**MS-8 Matching External Speaker**  
for R-8B..... **\$49<sup>95</sup>**

**SW-8 Communications Receiver** • Covers 100kHz to 30MHz, 87 to 108MHz (FM stereo with headphones) & 116 to 136MHz Aircraft. 70 scannable memories. Standard and synchronous detection AM, selectable SSB reception on the Medium and Shortwave bands. Direct frequency entry keypad, 0.5uV sensitivity, dual 6 or 4 kHz AM selectivity, 2.3kHz SSB selectivity. High contrast LCD readout; 100Hz tuning accuracy. Dual-mode clock/timer. AC adapter supplied, or use optional batteries for portable operation. 11" w x 5 $\frac{1}{2}$ " h x 11 $\frac{1}{2}$ " d, 10 lbs ..... **\$799<sup>95</sup>**



**SW-1 Shortwave Receiver** (right) Covers 100kHz–30MHz with synthesized microprocessor controlled tuning; 32 programmable memories. Easy tuning by Tuning Dial; Up/Down Buttons or Direct Keypad Entry. Dual antenna inputs for coaxial feedline or wire antenna. 12VDC or use the supplied AC adapter. 10 $\frac{1}{2}$ " w x 4 $\frac{1}{2}$ " h x 7 $\frac{1}{2}$ " d, 4.7 lbs ..... **CLOSEOUT \$299<sup>95</sup>**



**SW-2 Shortwave Receiver** Same as SW-1 except added features: Synchronous detection; 100 memories; larger display; Dimmer; Rear speaker jack. Improved sensitivity and selectivity. Optional convenient infrared remote control unit is available (pictured left) ..... **\$499<sup>95</sup>**

# ICOM



mem.; 20 banks of 40 channels plus auto write area of 100 channels & skip area of 100 channels. 20 scan edge mem. channels store 10 sets of freq. for programmed scan plus 1 priority. RIT, selectable AGC, noise blanker, tone, squelch, recording jack. **Selectivity:** 500 Hz, 2.3, 6 & 15kHz. RS-232C interface and voice synthesized readout. 110/220V AC; opt. 12V kit. 11 $\frac{1}{2}$ " w x 4 $\frac{1}{2}$ " h x 10 $\frac{1}{2}$ " d, 16 $\frac{1}{2}$  lbs ..... **\$1499<sup>95</sup>**

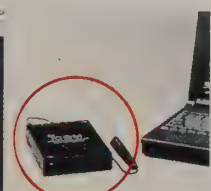
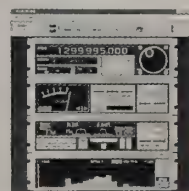
**R-100-11 Mobile Desktop Scanner** Covers 100kHz–799MHz & 900–1856 MHz. Cell blocked. AM, FM wide & narrow modes; Direct keypad entry or selectable step knob tuning. 7 scanning modes. 121 mem.: 100 for freq., mode, attenuator & preamp settings; 20 scan edge for 10 pair of ranges for programmed scan & 1 priority. 24-hour clock and timer. Telescoping antenna plus 3 external antenna inputs provided. DC cord and mobile mount included 13.8VDC @ 1A ..... **\$849<sup>95</sup>**



**R-10-05 General Coverage Pocket Scanning Receiver** Covers 500kHz to 1300MHz (cell blkd). AM, SSB, FM wide or FM narrow modes. Programmable tuning steps. On-screen spectrum display, 1000 non-volatile mem. channels arranged in 18 banks of 50 channels. Scan by bank, mode, or program. Alpha-numeric characters can be entered to identify channels and banks. Noise blanker and automatic noise limiter. Auto frequency control (AFC) and more! Easy-to-read edge-lit LCD display, 24-hour clock w/timer, adjustable LCD contrast, signal indicator, power-saver function. Uses Ni-Cd, alkaline or other DC source. Ni-Cds & wall charger incl. 2.3" w x 5.1" h x 1.2" d ..... **\$359<sup>95</sup>**

**PCR-1000 Communications Receiver for a Computer**

Turn a PC into a world-wide communications receiver. Connect the PCR1000 to a lap/desktop IBM-compatible for reception of a wide range of frequencies. Listen to favorite stations in the background while running other apps. 100% PC hardware external, IBM PC compatible. Everything needed to connect to computer included: power supply, built-in speaker, antenna, RS-232 cable & software. **Freq. coverage:** 0.01000–823.999999MHz\*, 849.000001–868.999999MHz, 894.000001–1300.00MHz (\*guaranteed 0.5–1300MHz only) **Modes:** WFM, FM, AM, SSB, CW **Memory Channels:** 1000/file **Requires:** • IBM® PC-compatible computer • Windows® v3.1 or 95 • Intel 486DX4 or better (Pentium® 100MHz or better recommended) • A least 10MB HD free space • At least 16MB RAM • FD drive, RS-232C (38400 bps or faster) serial interface • 640 x 480 pixel display or greater • Cell-blocked ..... **\$399<sup>95</sup>**



**PCR-100-12 Plug & Play Shortwave Wide frequency coverage:** 0.01–1300MHz (US version cell blkd). Listen to marine, shortwave, CB, amateur radio, FM, TV audio, commercial radio, satellites, aviation & more • Easy set up and use with 2 selectable control panels • AM, FM, WFM modes • CTCSS decode • Tunable bandpass filter • 13 tuning steps • Band scope • 20 banks of 50 mem. each • Stereo audio output • Auto Noise Limiter • RF attenuator • Digital S-meter • S-meter squelch • Incl.: wire antenna, OPC-743 serial cable, AC adapter and receiver software • **Requires:** Windows 95 or 98, 486DX4 or better, 10MB free HD space, 16MB mem., serial interface (38400 bps throughput), 640 x 480 pixel res ..... **SPECIAL \$249<sup>95</sup>**

# MFJ ENTERPRISES, INC.

# MFJ



**8100W Regenerative Receiver**

Stations • world-wide come in loud & clear with a 10' wire. Tune international shortwave, hams on SSB and CW, RTTY and packet radio. Covers 75–13M SW bands. Vernier drive tuning. Uses 9V batt., Walkman-type earphones or plug-in spkrs. 7" w x 2 $\frac{1}{2}$ " h x 6" d, 1 lb ..... **wired \$79<sup>95</sup>**



**MFJ-8121 21 Band**

**World Receiver** Receives FM, medium wave, long wave and 18 shortwave bands. Sony integrated circuit design provides excellent sensitivity & selectivity. Built-in telescopic ant. • LED tuning indicator • Detailed world time zone & freq. charts on back panel • Large built-in 3" speaker • (4 $\frac{1}{2}$ " h x 7" w x 1 $\frac{1}{2}$ " d) • Works on 6V DC or (4) "AA"s ..... **\$39<sup>95</sup>**

**784B Super DSP**

**Filter Eliminates** heterodynes; reduces noise/interference on SSB/CW/AM, digital modes, VHF, EME, satellite. Tunable FIR filters minimize ring, prevent data errors. Up to 60dB attenuation. Tunable Spotting Tone™ auto tunes CW filter in narrowest bandwidth. 2W audio amp w/AGC. 12V DC or 110VAC w/MFJ-1315. 2 $\frac{1}{2}$ " h x 9" w x 6" d ..... **\$229<sup>95</sup>**



**752C SSB/CW Audio Filter** (left) Pull out stations from noise & interference. Peak, notch, low or high pass control helps eliminate heterodynes & interference. Filters tune 300–3000Hz; bandwidth varies from 40Hz to almost flat; notches to 70dB. Switchable inputs for 2 radios. Uses 9 to 18VDC or 110VAC w/MFJ-1312B. 10" w x 2" h x 6" d ..... **\$89<sup>95</sup>**

**956 LW/MW/SW Preselector/Tuner** (right) Improves reception of signals from 150kHz–30MHz. Boosts signals while rejecting images, intermodulation, & other phantom signals. 2" h x 3" w x 4" d ..... **\$39<sup>95</sup>**

**959B Antenna Tuner & Pre-amp**

For 1.6–30MHz, provides proper impedance match between ant. & receiver for best reception. 20dB pre-amp w/gain control & 20dB atten. Select from 2 ant. inputs for 2 rcvrs. 9–8V DC or 110V AC w/MFJ-1312 adapt. 5" w x 2" h x 6" d ..... **\$99<sup>95</sup>**



**1024 Outdoor Active**

**Antenna** For 50kHz–30 MHz reception. Separate RF amp module with 54' whip mounts outside w/interconnect. made by supplied 50' coax to control unit, which contains gain control & 20dB atten. to prevent rcvr overload from amp. Switches select between 2 rcvrs & auxiliary ant. LED "on" indicator. Aux. in/output jacks. 12VDC/110VAC w/MFJ-1312. Control unit: 6" w x 2" h x 5" d, Outside module: 3" h x 4" w x 4" d. **\$119<sup>95</sup>**



**1020B Indoor Active**

**Antenna** Covers 300 kHz–30MHz in 5 bands. 21" telescoping antenna provides max. signal strength. Also functions as a preselector when using external ant. Minimizes intermod, improves selectivity, reduces noise. Uses 9V batt., 9–18V DC or 110V AC w/MFJ-1312B. 5" w x 2" h x 6" d ..... **\$69<sup>95</sup>**



**462B Multi-Reader**

Decode RTTY, ASCII, CW & AMTOR signals from amateur, commercial, military, weather, aero and marine. Plugs into receiver phone jack; displays messages on a 16 character LCD display. 12V DC. 5 $\frac{1}{2}$ " w x 2 $\frac{1}{2}$ " h x 5 $\frac{1}{2}$ " d ..... **\$169<sup>95</sup>**



SHORTWAVE



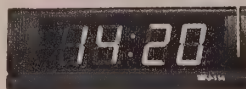
**MFJ** MFJ ENTERPRISES, INC.

**105C** 24 Hour Quartz Wall Clock Black, 10" dia. face, sweep second hand. Uses one "AA" battery ..... **\$19<sup>95</sup>**



**112** Dxer's World Map Clock and Calendar Pushbutton selection to highlight and show the Month, Day and 12/24 hour local time in 25 world cities. Large 1/2" LCD readout, alarm function. Tilt bracket, lithium battery backup. 5 1/4" w x 3 1/4" h x 3/8" d..... **\$24<sup>95</sup>**

**114B** Giant LED 24/12 hour clock Has four HUGE 2.3" high digits. The 12 or 24-hour display format is visible 50 ft. away or more! Operates from 110VAC with battery back-up feature. 6 1/2" h x 13" w x 1" d..... **\$59<sup>95</sup>**



**118** Jumbo LCD™ 24/12-hour clock 1.25" h - high contrast LCD digits. Shows year, month, date and day in four different languages. 100 year calendar, flip stand. Uses one "AAA" battery. 5 1/4" h x 3 3/4" w x 1/2" d..... **\$24<sup>95</sup>**



**Small 24-hour Clocks:** A Dual Clock with separate UTC and local time displays, and a Single Clock with 24 hour time only. Heavy brushed aluminum frame, 5/8" high LCD numerals, sloped face. Flashing seconds colon, battery included.

**107B** Single Clock, 2 1/4" w x 1" h x 2" d..... **\$9<sup>95</sup>**  
**108B** Dual Clock, 4 1/4" w x 1" h x 2" d..... **\$19<sup>95</sup>**



**116** 24/12 Hour LED Clock Switchable 24/12 hour display. Large, red 5/8" LED digits. 9 minute ID timer, loud alarm. Operates from 110VAC with battery back-up. Compact, 4 1/2" w x 2" h x 4" d..... **\$14<sup>95</sup>**



**152** ThermometerClock™ Shows outdoor/indoor temp. and time. Huge LCD multiple display shows 12/24 hour time & Celsius/Fahrenheit. Auto daily update of min./max. temp. readings & memory function that recalls readings during a selectable period. Wall mount or desktop display. Incl. outdoor sensor, 10' of wire, "AA" batteries. 5" h x 2 1/2" w x 3/8" d..... **\$24<sup>95</sup>**

**119** GIANT display™ 12/24 Hr Calendar/Clock Size is 8 1/2 x 9" - easily visible from 15 to 20 feet. Shows 12/24 hour time, digital calendar (year, month, date, day), and Celsius or Fahrenheit temperature. While and silver speckled - attractive for shack, office, police, fire, etc. "AAA" batt. incl..... **\$49<sup>95</sup>**

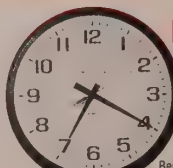


**120** Monster Display ATOMIC Clock Self-calibrated from signals transmitted from the U.S. Atomic Clock in Fort. Collins, CO Shows 24/12 hour time, indoor temp. and relative humidity. Size: 8" h x 10" w x 3/4" d (displays 6 1/2" w x 2" h) - visible 20' away. Wall or desktop..... **\$69<sup>95</sup>**

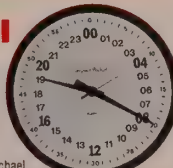
**MFJ-115** WORLD Map 24 hour Quartz Wall Clock Set to GMT and know what time it is in designated areas of the world any time of day. Premier cities outline trim of 12" dia. Operates on single "AA" batt. (not incl.) .. **\$24<sup>95</sup>**



**MFJ-125** DXer's Dream 24 hour Quartz Wall Clock 12" dia. face shows highly visible, 24 hour format w/smaller day, date & 12 hour indicators. All dials set independently to handle special formats. Single "AA" battery (not included) .. **\$29<sup>95</sup>**



**972A** (left) Battery operated 12-hour time quartz controlled clock with sweep-second hand. Huge 12" dial allows excellent visibility in large rooms. Black textured case and clear glass crystal. Uses one "AA" battery. 14" diameter x 1 1/4" deep..... **\$28<sup>95</sup>**



**973A** (right) as above, but 24-hour version .. **\$49<sup>95</sup>**



**972AD** 14" diameter, 12 and 24 hour format wall clock, sweep-second hand. Uses one "AA" battery ..... **\$32<sup>95</sup>**



**Nitellogger II** Auto Tape Recorder Activator Takes audio from 8Ω source & provides 600Ω match & voice activated relay oper. for tape recorder. Connects: radio ext. spkr jack, recorder remote & mic inputs. Makes simple crossband repeater by connecting 2 HTs. Monitor spkr w/volume, drop-out sensitivity & delay controls. 110V AC adapter supplied ..... **\$69<sup>95</sup>**

**RC-1A** Impedance Matching Patch Cord Provides a proper impedance match between 8Ω audio source and 600Ω tape recorder input. Provides proper loading for source device, attenuator prevents recorder input overload. 3.5mm audio plugs..... **\$19<sup>95</sup>**



**AMECO** TPA Tunable Pre-amp and Active Antenna Covers the 2-30MHz range in 5 bands. Use it w/outside antenna as tunable preamp with better than 20dB gain and low noise figure, or as an effective indoor active antenna using the built-in 30 inch collapsible whip. Requires 9V batt. or 110V AC from opt. PT-9T AC adapter. 2 1/2" h x 8" w x 6 1/2" d... **\$76<sup>95</sup>**

## Palomar Engineers

### VLF CONVERTERS

Receives/converts 10kHz to 500kHz Very Low Frequency band to 80m. 2 models tune this low range on general coverage receiver or Ham band transceiver. Uses 9V battery. 2" h x 4 1/4" w x 5" d.

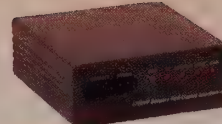


**VLF-A** Use with Ham Band transceiver ..... **\$89<sup>95</sup>**  
**VLF-S** Use with General Coverage receiver..... **\$89<sup>95</sup>**

## ANTENNA SUPERMARKET

### EAVESDROPPER

Shortwave Antenna Center-fed dipole w/8-trap config. Provides reception of short-wave bands from 11-90 meters. Incl. Zap-Trapper® gas-tube lightning arrestor & 50' support rope. Overall length: 42'. Fully assembled. When ordering, specify 100' of 72Ω twin lead, or weatherproofed coaxial center connector (coax not incl.)..... **\$79<sup>95</sup>**



**CES** WIRELESS TECHNOLOGIES

**4700VP** Telephone Interconnect Versatile simplex or half duplex patch • True DTMF regen. • 25 speed dial locations • Full remote "over-air" programming • VERATEC smart sampling VOX enhanced protocol or simple VOX control • Auto redial • Comprehensive toll restrict w/override code • Call limit timer • Local program. • Auto setup • CW-ID • User program. ID code • Time-out timer/beeps • Reverse patch ring • Repeat audio • Busy channel inhibit • CTCSS logic input • Tone dialing/multi-country pulse • 1.5" x 4" x 4" ..... **SPECIAL \$169<sup>95</sup>**



**SDI-50** Automatic Simplex Interconnect Gives telephone access to handhelds and mobiles. Remotely programmable from any DTMF phone. Converts base stations to remote station accessible from any phone. VOX-enhanced sampling, Automatic CW ID. Interface cables included. 14 1/4" w x 8 3/4" d x 1 1/2" h, 3 1/2 lbs ..... **\$469<sup>95</sup>**

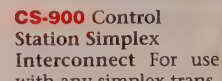


Fully automatic interface between an FM base radio

and phone line to initiate and receive phone calls in a mobile or on an HT without assistance. The CS-800 & CS-900 each contain powerful microprocessor controlled features such as: • 90 Memory Speed Dialer • Redial • Built-in Programming Keyboard & Digital readout • Remote Base Mode • Regenerated Tone or Pulse Dialout • CW ID • Toll Restrict



**CES-800** Full Duplex Interconnect Operates full or semi-duplex and also has a built-in repeater controller. Simply connects to transceiver mic and speaker jacks. FCC and DOC approved. 12.15 VDC. 7 3/4" w x 7 1/2" d x 2" h, 2 1/2 lbs..... **\$359<sup>95</sup>**



**CES-900** Control Station Simplex Interconnect For use with any simplex transceiver. Also use thru remotely located repeaters (from base) for added range. Digital voice delay standard. Connects to mic and speaker jacks of simplex transceiver. FCC & DOC approved. (Transceiver switching speed does not affect performance) 12-15VDC 7.9" w x 7.5" d x 2" h, 2 1/2 lbs..... **\$359<sup>95</sup>**

**ALPHA DELTA COMMUNICATIONS, INC.** AA



**DX-SWL** Shortwave Sloper Antenna Covers 13, 16, 18, 19, 21, 25, 31, 41, 49, 60, 90 & 120 meter short-wave bands, plus the AM broadcast band. Sloper design provides outstanding reception of low-angle DX signals. Multi-band transmit capability with an antenna tuner, handles up to 2000 watts. Overall length is 60 ft., requires 50Ω coaxial cable.... **\$79<sup>95</sup>**



**DX-ULTRA** Shortwave Dipole Covers AM broadcast through 30MHz. Efficient, low-noise, broadband performance for medium wave, tropical, international SW, military, government, embassy, maritime, aircraft, commercial & utility freq. Designed with inductors, parallel wire elements & center insulator w/built-in static electricity Protector. Length is 80 ft. - may be installed as a dipole, inverted-V, or full sloper. It can be used with an antenna tuner as a transmit antenna up to 2kW. Connector accepts coaxial cable or balanced line. Assembled.... **\$119<sup>95</sup>**



# World Band Receiver Radios

TOOLS  
FOR  
GLOBAL  
EXPLORATION



SONY



# Chart the four corners of the world...



## ICF-SW1000T

With the ICF-SW1000T, you can tune in—*and record*—news or other programs from around the globe. The built-in stereo cassette recorder lets you record directly from the radio and offers a convenient Timer Record Function. Ten-key Direct Access™ tuning simplifies tuning in your favorite distant stations, while synchronous detection circuitry ensures the clearest possible reception.

- LW/MW/SW/FM Stereo Reception over a wide range of frequencies.
- SSB (Single Side Band) and synchronous detection for reception of SSB broadcasts. Can also help reception of weak signals.
- PLL Quartz Digital Synthesized Tuning for accurate and drift-free tuning.
- 3-Page Random Memory preset tuning to save your favorite stations. Total of 32 random memory presets.
- 1 KHz Step Tuning to lock in on precise station reception.
- Stereo Cassette Recorder (play/record) with auto reverse and tape select to record directly from the radio or play your own cassettes.
- Timer Record Function to record directly from the radio at a preset time.
- Built-in Clock with alarm, dual standby and sleep timer function.
- Dimensions (WHD): 7" x 4 1/8" x 1 5/8"

## ICF-SW1000TS

World Band Receiver™ Stereo System Kit

This powerful World Band Radio™ System comes complete with receiver and stereo antenna.

- Comes with ICF-SW1000T FM Stereo World Band Receiver radio (left).
- Includes AN-LP1 Active Portable Loop Antenna (right).
- 120 VAC Adaptor.
- Compact stereo headphones and stereo microphone.
- Soft carrying case supplied.

*Get to know the world as you never have before with Sony World Band Receiver™ radios.*

*High-performance Sony World Band Receiver radios and accessories boast the advanced technology that makes your global exploration possible.*

*Sony receivers let you survey breaking events and world business trends, enhance your language skills or your cultural awareness, follow major sporting events or simply track the weather. And user-friendly functions, such as built-in clocks and convenient tuning methods make it easy.*

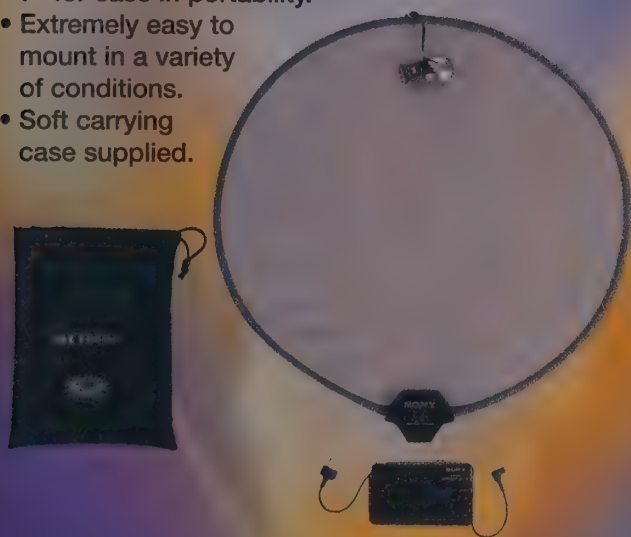


## AN-LP1

### Active Antenna

This lightweight active portable loop antenna enhances your receiver's sensitivity for clearer reception of even weak signals.

- Provides high sensitivity and noise reduction.
- Active antenna controller with rotary tuning.
- Works with most Sony World Band Receiver radios
- 19" loop antenna that folds to 7" for ease in portability.
- Extremely easy to mount in a variety of conditions.
- Soft carrying case supplied.



## ICF-SW7600G

Turn on the ICF-SW7600G and meet the cultural heroes and pop icons of countries around the world. Ten-key Direct Access tuning and 22 station memory presets make finding your favorite stations push-button easy.

- AM (LW/MW/SW) and FM Stereo Reception.
- PLL Quartz Frequency Synthesized Tuning for accurate and drift-free tuning.
- Synchronous Detection Circuitry to reduce fading and interference.
- Dual Conversion Super Heterodyne Circuitry for increased sensitivity.
- SSB Reception for a wider range of listening options and improved reception of weak signals.
- Manual and Auto Scan Tuning.
- 1 KHz Step Tuning to lock in on precise station reception.
- Built-in Clock with sleep timer and dual standby functions.
- Large 3" Speaker.
- Dimensions (WHD): 7 5/8" x 4 3/4" x 1 5/16".

## ICF-SW7600GS

### World Band Receiver Radio System Kit

An active antenna enhances the reception capabilities of the ICF-SW7600G receiver.

- Comes with ICF-SW7600G FM Stereo Multi-Band World Band Receiver radio (above).
- Includes AN-LP1 Active Portable Loop Antenna (left).
- 120 VAC adaptor.
- Soft carrying case supplied.

# From the comfort of home.



# Follow the course of world politics and business...



## ICF-SW77

Staying on top of world events is virtually effortless with the ICF-SW77. A 5-event programmable timer reminds you of programs you don't want to miss and allows unattended listening. Up to 162 memory presets help you keep track of favorite stations for easy tuning, while Station Name Tuning allows direct tuning by broadcaster name.

- AM (LW/MW/SW) and FM Stereo Reception over a wide range of frequencies.
- PLL Quartz Frequency Synthesis Tuning for optimum stability and better reception.
- SSB Reception for a wider range of listening options and improved reception of weak signals.
- Station Name Tuning (with adiabatic labels).
- Synchronous Detection Circuitry to reduce fading and interference.
- Backlit LCD Display with contrast adjustment.
- 10-Key Direct Access Tuning.
- Universal Time Coordinator with world time scale.
- Manual or Automatic Scan Tuning with 50 Hz step tuning.
- Electronic Rotary Tuning Dial for convenient manual tuning.
- 5" x 3" Speaker for excellent reception of voice or music broadcasts.
- Dimensions (WHD): 10 7/8" x 8 7/8" x 1 7/8"

With Sony World Band Receiver radios, you can tune in broadcasts on familiar FM and AM and shortwave frequencies. Short (higher-frequency) waves are reflected by the Earth's ionosphere, rather than absorbed like long and medium waves, so they can travel great distances—and you can hear programs from halfway around the world.

Because shortwave broadcasts can be adversely affected by atmospheric conditions, programs are often broadcast at various times and/or on various frequencies. The advanced reception and tuning features of Sony World Band Receiver radios help to maximize your ability to receive the programs you want to hear.



## ICF-2010

Performance and convenience distinguish the ICF-2010. It begins with an industry reputation as one of the best World Band radio receivers ever made. Combine this with tuning accuracy and reliability and the ICF-2010 has become a reference standard of the industry. Direct Access tuning for directly keying in station frequencies and 22 station memory. With the ICF-2010, you can receive Air Band as well as FM and full AM frequencies.

- Full AM Band Coverage (LW/MW/SW) plus FM and Air Band Reception.
- SSB Reception for a wider range of listening options and improved reception of weak signals.
- Dual PLL Quartz Frequency Synthesizer tuning for superior reception.
- Synchronous Detection (Diversity) reduces fading and interference.
- Switchable "IF" Band Width.
- Manual, Automatic and Memory Scan Tuning.
- Programmable Timer offers convenience of tuning receiver in sleep or automatic.
- Built-in Clock with alarm, standby and sleep mode functions.
- Dimensions (WHD): 6 3/4" x 4 1/4" x 1 7/16"



## ICF-SW40

With a 54-band range of frequencies, the ICF-SW40 is an easy-to-operate, user-friendly receiver that's ideal for polishing your language skills and a host of other uses.

- Easy to use design combines the ease and familiarity of conventional analog operation with the accuracy and stability of digital tuning.
- AM (LW/MW/SW 1-11) and FM Stereo Reception.
- PLL Quartz Digital Synthesized Tuner for drift-free tuning.
- 20 Station Memory Presets for easy tuning of favorite stations.
- 1 KHz Step Tuning to lock in on precise station reception.
- Built-in Clock with dual standby function.
- Dimensions (WHD): 6 3/4" x 4 1/4" x 1 7/16"



Or immerse yourself in  
international cultures.



# Savor local color when you travel...



## ICF-SW100S

World Band Receiver Radio Kit

Experience any destination as the locals do with the ICF-SW100S. About the size of an audio cassette and weighing less than 8 ounces, it's ideal for travel. You can tune in local broadcasts or search for frequencies you don't receive at home. And its World Time Clock, with 24-city name/time display, lets you calculate the time in any city worldwide.

- AM (LW/MW/SW) and FM Stereo Reception.
- PLL Quartz Frequency Digital Synthesis Tuning for accurate and convenient tuning.
- Dual Conversion Super Heterodyne Tuner Circuitry for high sensitivity.
- 50 Station Memory Presets.
- Entable Station Labels.
- Auto Scan, Manual and 10-Key Direct Access Tuning.
- Built-in Clock with sleep timer and dual standby function.
- 1 KHz Step Tuning to lock in on precise station reception.
- Kit includes compact stereo headphones, 120 VAC adaptor, active antenna and soft carrying case.
- Dimensions (WHD): 4 3/8" x 15 1/8" x 2 7/8"



## ICF-SW30

Compact size and simplicity of operation make the ICF-SW30 receiver ideal for business travelers, students—just about anyone. With a power/Music Tone Switch, it offers maximum clarity whether you're listening to voice or music.

- 12-Band Receiver including FM Stereo, AM and SW Bands 1-10.
- Dual Conversion Tuner Circuitry for high sensitivity.
- 15 Station Memory Presets.
- Digital Synthesized Tuning to simplify tuning to the desired station.
- Auto Scan Tuning.
- 1 KHz Step Tuning to lock in on precise station reception.
- Built-in Clock with alarm.
- Dimensions (WHD): 6 3/4" x 4 5/8" x 1 7/8"

*Whether you are listening to programs at home or abroad, for business or pleasure, you can count on the sensitivity, selectivity and stability of Sony receivers to deliver the clear reception and ease of operation that you want from a world band radio.*

*Sony receivers offer such features as Synchronous Detection, PLL Quartz Synthesis Tuning, Direct Access tuning and Single Side Band reception to ensure the ultimate in clear reception and easy tuning. Sony World Band Receiver radios—there's a model that's right for you.*





## ICF-SW12

With 11-band receivers and a Universal Time Coordinator, the ICF-SW12 with protective cover is an ideal radio for travel. Convenient features make it easy for you to listen in a wide range of frequencies.

- 11-Band Receiver including FM, LW and SW Bands 1-9.
- Designed for travel, has a protective cover and with protective case.
- World Time Clock and Universal Time Coordinator to give you time for cities worldwide.
- Backlit LCD Display for easy viewing of time and alarm setting.
- LED Tuning Indicator for precise carrier-frequency indication and accurate tuning.
- Built-in Alarm with convenient snooze button.
- Dimensions (WHD): 1 1/2" x 4 3/8" x 2 1/8"



## ICF-SW10

Whether you travel across the country or around the world, the compact ICF-SW10 can bring you the programs you want to hear.

- 12-Band Receiver including FM Stereo, MW, LW and SW Bands 1-9.
- Easy Analog Tuning with LED Indicator.
- FM Stereo Headphone Jack for private listening in noisy environments.
- DC-In Jack for optional AC adapter to conserve battery life.
- Compact size.
- Dimensions (WHD): 6 1/2" x 3 3/4" x 1 5/16"

But never be far from  
home.



regular



# EXTRA STRENGTH

Listen to late-breaking world events at their source. Tune in to major sporting events, and cheer on your favorite team. Brush up on your French... or your Arabic... or your Chinese. **Sony World Band Receiver™ Radios** bring the world in loud and clear—wherever you are—with the latest in receiver technology. Whether you're a novice or a radio buff, there's a Sony World Band Receiver Radio with user-friendly features designed for you.

Sony World Band Receiver Radios. Hear the world.

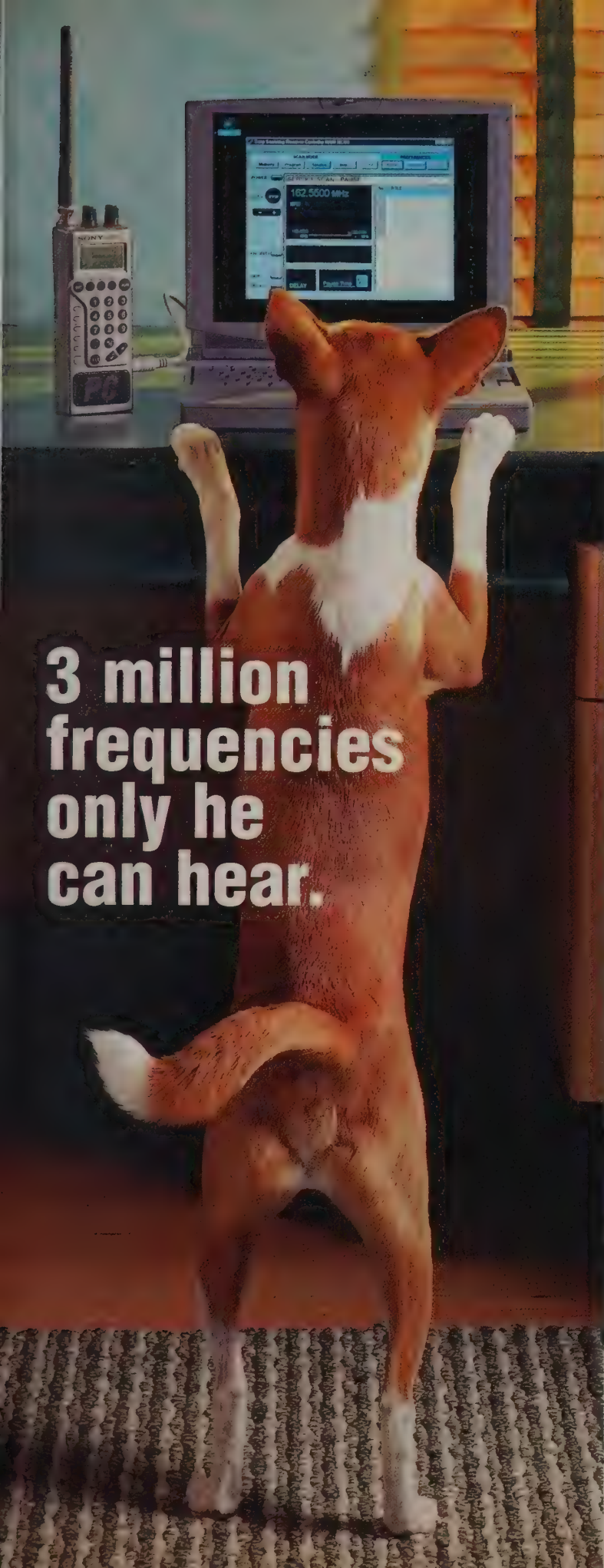
[www.sony.com](http://www.sony.com)

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SONY







**3 million  
frequencies  
only he  
can hear.**

**Only Sony can turn your PC into a watchdog of the airwaves with the Sony Radio Frequency Scanner and CD-ROM frequency database.**

Use the Sony Radio Frequency Scanner with PC Interface and be forewarned about approaching weather systems, traffic conditions and emergency situations. You can even get inside information at some of your favorite sporting events. The Sony CD-ROM gives you easy access to listings of 3 million U.S. frequencies. It makes scanning fast- and easy.

A unique bi-directional PC interface lets you use your PC to control all the Sony Radio Frequency Scanner's standard functions, as well as its special features, including:

- 20 programmable Scanning Ranges.
- Virtually unlimited Memory and Skip Preference Files.
- Data Import and Export between Scanner and PC.
- A searchable CD-ROM database of over 3 million U.S. frequencies.

**Performance you can rely on**

The Sony Radio Frequency Scanner with PC Interface is a powerful hand-held scanner with the latest scanning circuitry for top performance. It features the full range of functions and features scanner enthusiasts want:

- 25MHz to 1,300MHz Frequency Scanning
- 300-Channel Memory for personal customization.
- Public Service Scan of 9 pre-programmed bands, including police, air, fire/emergency, weather, marine, FM, and TV.
- Intelligent Active Memory that saves the 10 most recently received frequencies for convenient recall.
- AM and Narrow and Wide FM Reception
- Back-lit Display
- Compatible with Windows® 95

**The Sony Radio Scanner with PC interface... watchdog of the airwaves.**

[www.sony.com/radioscanner](http://www.sony.com/radioscanner)



*Includes ICF-SC1PC Scanner, CD-ROM and interface cable*

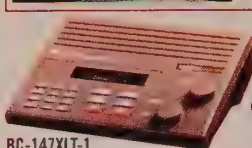
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**SONY®**

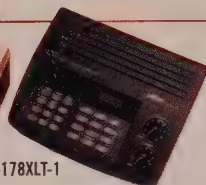




**Scan the Action!**  
HamRadio • Police  
Fire • Emergency  
Highway Patrol  
Weather  
Sports Events  
More!



BC-147XLT-1



BC-178XLT-1

**BC-147XLT-1** 16 channel base unit with 10 bands, including weather. Covers 29-29.7, 29.7-50, 50-54, 136-144, 144-148, 148-174, 406-420, 420-450, 450-470 & 470-512 MHz. Two-digit LED display for current channel selection and scanning. Keyboard entry; Direct channel access; Manual step tuning; Lockout; Priority; Review; Weather search; Automatic squelch; track-tuning; Mem. back-up. 9" w x 2" h x 6" d, 1.2 lbs. .... **\$99<sup>95</sup>**

**BC-178XLT** 100 channel programmable base unit w/aircraft. 11 bands, 5 scanning banks. LCD display; TurboScan™ & search; Weather scan and search; Five priority channels; Data skip; Service search; Auto. squelch; Program. delay. AC adapter and telescoping antenna. 9" x 6" x 2", 1 lb. 7 oz **\$139<sup>95</sup>**



**BC-350A** 50 channel mobile or base unit with aircraft; 11 bands, LCD display;

Super Turbo-scan™ @ 100 channels per sec. 20 program. Private Channels; 20 programmable Police Channels; 10 programmable fire & emergency channels. Band scan for aircraft; marine & weather; band search. Mounting bracket; AC adapter, DC & cigarette power cords. 5" w x 6" h x 1" d, 1 lb. 11 oz ..... **\$119<sup>95</sup>**

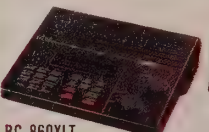


**BC-760XLT** 100 program. channels, 5 scanning banks, 12 bands & weather. Covers 29-54, 118-136, 144-174, 406-510, 470-512 & 806-956 MHz (no cell). Auto search; Priority. 13.8V DC, 110V AC adapter incl. 6" w x 1" h x 7" d, 1 lb, 3 oz ... **\$219<sup>95</sup>**

**BC-895XLT** "Trunk-Tracker" 300 channels, 12 bands including Aircraft and 800 MHz;



10 banks. Covers 29 to 956 MHz (cell blocked). Turbo™ Scan; One-touch weather; Weather alert; Manual channel access; Built-in CTCSS; Trunk search; Scan lockout and delay; RS-232C port; VFO control; 10 priority channels; Signal strength meter; Auxiliary tape output; Automatic store; 30 trunking channel indicator annunciators; 3-day Memory backup; Programmable search; Lockout. 10" w x 3" h x 7" d, 3 3/4 lbs. .... **\$219<sup>95</sup>**



BC-860XLT



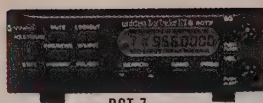
BC-9000XLT

**BC-860XLT** 100 channels, programmable with aircraft. 12 bands, 10 banks. Covers 29-956MHz (no cell). Full freq. LCD display; TwinTurbo™ scan & search; One-touch weather; Manual channel access key; Priority mode. 9" w x 2" h x 6" d, 1.2 lbs **\$179<sup>95</sup>**

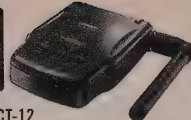
**BC-9000XLT** 500 channel continuous band scanner. Covers 25 to 1300MHz (cellular blocked). 20 banks. VFO control; 10 priority channels; AM-FM/wide and narrow FM modes; TurboScan™ and search; LCD dot matrix alpha display with illuminated control; Data skip; Transfer; Auto store; Auxiliary line output for recording; 110V AC adapter, optional CTCSS. 10" w x 7" d x 3" h, 4 lbs. .... **\$429<sup>95</sup>**



We accept I.M.P.A.C.® Government Credit Cards



BCT-7



BCT-12

**BCT-7** Bear Tracker 800 Pre-programmed with all frequencies for highway patrol, D.O.T, local/county police, news, fire, aircraft & CB services. Selectable by state (except HI). 12 bands, 100 user programmable channels: Highway Patrol Priority Alert; Data Skip, Weather Scan. 13.8VDC. 110V AC adapter & mobile mount incl. 5" w x 7" d x 1" h, 1 lb, 11 oz ... **\$179<sup>95</sup>**

**BCT-12** BearTracker Highway Information System Covers low, high, UHF & 800MHz highway patrol, police, sheriff, weather, news & transportation frequencies for all 50 states and Canada. Weather emergency tone alert, priority, channel lockout, digital signal meter level meter ..... **\$179<sup>95</sup>**

**BC-244CLT** 30 channel, 10 band programmable scanning radio • Tune in police, fire, instant weather, ambulance, military, "Ham" radio and more! • Alarm clock feature • Full frequency LCD display ..... **\$99<sup>95</sup>**



**BC-248CLT** 50 channel, 10 band programmable scanning radio • Looks and reception similar to BC-244CLT. • Alarm clock feature • AM/FM radio with 20 presets • Full frequency LCD display • Emergency weather alert ..... **\$109<sup>95</sup>**

**BC-278CLT** 100 channels, 12 bands, cell blked. Looks and reception similar to BC-244/248CLT. Includes 800MHz & aircraft • Alarm clock feature • AM/FM radio with 20 presets • Full frequency LCD display • Emergency SAME weather alert ... **\$189<sup>95</sup>**



**SC-150B** "SPORTCAT" 100 channel program. handheld scanner w/aircraft, weather & 800MHz band (no cell). Designed for sports fans with 10 one-touch, direct-access keys. 12 bands; 10 scanning banks; program. band search; data skip. TurboScan™ scans 100 channels/sec., allowing instant access up to 100 memorized freq. in the 29-54, 108-174, 406-512 & 806-956MHz bands. 10 preprogrammed TurboSearch™ keys allowing band-edge to band-edge freq. locating. Rechargeable batt., wall charger, flex ant., belt clip, earphone. 2" w x 1" d x 6" h, 12 oz **\$179<sup>95</sup>**



**BC-245XLT** Portable SmartScanner® TrunkTracker II. 300 channels, 12 bands. Full frequency LCD display • SmartScanner • TrunkTracker II (Motorola and G- Tracker) • One-touch weather ..... **\$229<sup>95</sup>**



**DJ-X10T Professional Multifunctional Wideband Receiver** Covers 0.1 to nearly 2000MHz (cell blocked), & all modes. FEATURES: Dual VFO; Mem. (MR); Scan programming (PMS); One-touch switching; 1200 memory channels (40 CH x 30 banks). SCANNING: Programmable (PMS); Memory; Mode-selected; VFO scan; VFO linked; Priority. CHANNEL SCOPE: Switchable between 40 & 7 CH with Continuous, Interval, Peak and Single search. Built-in 24 hour clock with ON/Off timer. Built-in cable cloning function **SEE PRICE GUIDE**



**Monitor America** Third edition. A complete listing of public safety and business radio communications of almost every community in the nation. Includes maps, tone codes and repeater input/output frequencies. Listings of AM and FM radio stations with frequencies and formats. Race car teams, sections of Disney and other places. .... **\$29<sup>95</sup>**



BC-60/80XLT

BC-120/230XLT

BC-3000XLT

BC-235XLT

**BC-60XLT-1** 30 channel, 10 band programmable handheld scanner. Covers 29-512 MHz. LCD channel display; Programmable chain search; One-touch weather; Lockout; Memory backup; Low-battery indicator; Keypad lock; Scan delay; Manual channel access; Track tuning; Keypad lock. Uses four "AA" alkaline or nicads or AC operation with included 110V AC adapter. 2" w x 6" h x 1 1/2" d, 10 1/2 oz **\$99<sup>95</sup>**

**BC-80XLT** 50 channel, programmable handheld scanner. Covers 29-956MHz (no cellular). 11 bands, 5 banks, 5 priority channels and One-touch weather. Manual channel access; Bands search; Full frequency LCD display; Battery-low indicator. Uses four "AA" alkaline or nicad rechargeable batteries (not included). AC adapter included for 110V operation. 2" w x 6" h x 1 1/2" d, 10 1/2 oz ..... **\$149<sup>95</sup>**

**BC-120XLT** 100 channel, programmable handheld scanner with aircraft coverage. 11 bands, 10 scanning banks, LCD display, Turbo Scan™ and search. One-touch weather, 10 priority channels, data skip, memory backup. Belt clip, battery and wall charger included. 2 1/2" w x 1 1/4" d x 6" h, 1 1/2 oz ..... **\$149<sup>95</sup>**

**BC-230XLT** 200 channel, program. handheld scanner w/aircraft & 800MHz (no cell). 12 bands, 10 scanning banks. Programmable search. LCD freq. display, Turbo Scan™ & search. One touch weather access, 10 priority channels, data skip, memory backup. Includes two rechargeable nicad batt. & charger module, belt clip. 2" w x 1" d x 6" h, 12 1/2 oz ..... **\$189<sup>95</sup>**

**BC-3000XLT** 400 channel, continuous band scanner. Covers 25 to 1300 MHz (no cell) in 12 bands. 20 scanning banks, 10 priority channels. VFO control; TurboScan™ and search, auto-weather, auto-store; channel lockout. Includes rechargeable nicad battery and charger. 2 1/2" w x 1 1/4" d x 6" h, 12 1/2 oz ..... **\$399<sup>95</sup>**

**BC-235XLT** "TrunkTracker" 300 channel, programmable handheld scanner. 12 bands including Aircraft and 800 MHz. Covers: 29-956 MHz (no cell). Programmable search; Trunk lockout; Memory backup; Trunk delay; Manual channel access; Trunk scan; Pre-programmed service search; Trunk search; Channel lockout; 10 priority channels; AC/DC operation, includes two rechargeable nicad batteries and charger. 2" w x 6" h x 1 1/4" d, 12 1/2 oz ..... **\$219<sup>95</sup>**



**PEC SPECTRUM SPECTRUM**

FCC Database Over 3 mil. nation-wide freq. records. Incl. freq., call sign, class of station & radio service codes, company, transmitter city/county/state/lat./long., & no. of units for vehicle, marine, air, portable, & pagers. Records for police, hospitals, fire, state/local gov., theme parks & more. IBM compatible; Mac OS 7 or later. .... **SPECIAL \$99<sup>95</sup>**



**DIAMOND ANTENNA**

**D130J** Super Discone Antenna Ultra-wideband ant. covering amateur radio, air traffic control and other utility bands. Rust-free stainless steel employed in major component parts • 25 to 1300 MHz rx, 100 to 1300MHz tx, 50-54 (tunable) • 1.7m (66.9"), max. length 0.41m (16.1") • 1kg (2.2 lbs.) • 25 to 52mm (.098) to 2.05" mounting brackets supplied • 200 w, 100-1300MHz; 50w, 50MHz ..... **\$89<sup>95</sup>**



# DAVIS

Weather Stations

Gives Wind Direction & Speed, Temperature, Rain & Barometric Trend, Humidity, Dew Point, Alarms. Download and Graph Data on your PC - remote with Modem Interface. Central Junction Box for Easy Hook-up, Modular Design. Perfect for NOAA Weather Monitoring Stations.

## 7440 Weather Monitor II®

Top-of-the-line personal weather station combines all weather monitoring function & 12 or 24 hour clock with date into one package. Shows them on an easy-to-read, back lit, 1 1/4" x 4 3/4" LCD display. **Temperature:** Indoor, from 32°F-140°F **Wind:** Wind direction in 1° or 10° increments • **Speeds** to 175 mph • **High wind speed** • Wind chill to -134°F • **Low wind chill** **Barometer:** Barometric pressure (with memory recall) Trend arrow **Humidity:** Inside humidity 10%-90% (outside optional) • High and low humidity **Alarms:** Temperature, wind speed, wind chill, humidity, and time. Barometric trend alarm for change >.02, .04, or .06" of mercury in an hour **Other Features:** Compact, 5 1/2" x 5 1/2" x 3" • Scans selected functions • AC operation with battery back-up • Use on desk, shelf or wall..... **\$349<sup>95</sup>**

**7859 External Temperature & Humidity Sensor** For the 7440; measure outside humidity, dew point & temperature. Comes with 40' cable ..... **\$109<sup>95</sup>**

**7425 Weather Wizard III®** Monitor both indoor and outdoor weather conditions at the touch of a button on the 1 1/4" x 4 3/4" LCD display. With the optional Rain Collector, measure daily and accumulated rainfall. Optional WeatherLink software will process and store weather data through an IBM® compatible PC or Mac®. With anemometer, external temperature sensor, junction box, cables and AC adapter. **Temperature:** Indoor, 32°F to 140°F • Outdoor, -50°F to 140°F • High and low temperature. **Wind:** Direction in 1° or 10° increments • **Speeds** to 175 mph • **High wind speed** • Wind chill to -134°F • **Low wind chill** **Alarms:** Temp. • Wind speed • Wind chill • Time. **Other:** Compact, 5 1/2" x 5 1/2" x 3" • Scans selected func. • Metric or U.S. units • AC oper. w/back-up • Desk, shelf or wall mount ..... **\$169<sup>95</sup>**

**7415 Weather Wizard II-S®** Like Weather Wizard III, but does not show wind direction, and the LCD display is smaller .... **\$129<sup>95</sup>**

**7852 Rain Collector II** For 7440, 7425 & 7415; read both daily & accumulated rainfall in 0.01" increments. Comes with 40ft cable..... **\$69<sup>95</sup>**

**7400 Perception II®** Monitors indoor climate, looks similar to Weather Wizard III. **Functions:** Temperature 32°F-140°F High/low temperature • Barometric pressure w/memory recall • Humidity • High & lows recorded with time & date • **Alarms:** Temperature, humidity, time, barometric change >.02, .04, or .06 inches of Hg/hr • 12/24 hr clock w/date • Backlit display..... **\$129<sup>95</sup>**

**40 ft. Extension Cables**

**7876** 4-conductor, for anemometer, ext. temp. sensor, rain collector, or WeatherLink ..... **\$18<sup>95</sup>**

**7878** 6-conductor, for use with the external temperature and humidity Sensors, only ..... **\$22<sup>95</sup>**

**0281 Wind Wizard™** Wind Speed Indicator Handheld unit accurately measures wind speed from 0-60 MPH. No batteries required..... **\$46<sup>95</sup>**

**WEATHERLINK® 4** Software for Windows Link Perception, Weather Wizard, or Weather Monitor to your computer. Create graphs, calculate average conditions, generate summaries, analyze trends, more. See DAVIS in the Price Guide

# MIDLAND

74-109

## WEATHER MAX PLUS Weather/All Hazard VHF Radio

Around-the-clock, up-to-the-minute weather and "hazardous conditions" information

Equipped with all 7 N.O.A.A. channels in the 162 MHz range for max. reception of local weather reports & bulletins for hazardous conditions (i.e., fire, toxic spills, earthquakes, radiation leaks, etc.)

In the event of severe weather or any type of hazardous situation, a warning signal is broadcast by N.O.A.A. & the radio's "alert" is automatically activated - sounding a 90 decibel siren, a voice warning or flashing a red LED alert. There is also accessory jack for keying add-on external alert devices such as strobe lights, pillow vibrators, buzzers, etc.

Plugs into a standard 120 VAC outlet. Built-in jack permits powering from any 12 VDC vehicle. With its 9V batt. backup system, it operates during power outages or outdoors. 1 3/8" h x 6 1/4" w x 4 3/4" d ..... **\$39<sup>95</sup>**



**WX-70 Weather Monitor** • Receive up-to-the-min. National Weather Service broadcasts of local weather conditions for the United States, Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands. Covers all seven N.O.A.A. frequencies: 162.550, 162.400, 162.425, 162.475, 162.450, 162.500, and 162.525 MHz. Three different severe weather "Alert" warning modes: "Voice", 10 Second Siren; or Flashing LED. Supplied 110V AC adapter, uses a 9V battery for back-up power in the event of an electrical outage. 5 3/4" w x 4 3/4" d x 1 1/2" h, 13 oz ..... **\$39<sup>95</sup>**

## OREGON SCIENTIFIC NOAA Weather Radio

### All Hazards Weather Radios

Monitors 24-hr weather forecasts and alerts • Scans/tunes all NOAA channels • Monitors U.S. emergency alert system w/auto activation • Dual LED power/alert indicator • Digital clock & alarm w/snooze • Incl. power supply **WR-8800** Pocket-sized • Ambient temperature display • Freeze alert audible/visual warning LCD screen with backlighting • Water-resistant case with compass • Belt clip and built-in desktop stand with power supply • Uses 3 "AA" batteries (not incl.) • 2 1/2" w x 1" d x 6 1/2" h, 8 oz... **\$59<sup>95</sup>**

**WR-3300** Desktop/Bedside • Operates on 3 "C" batteries (not included) or with included AC power adapter • Large digital clock LCD • Wall mount/desktop • 5" l x 4" w x 2" h, 6 oz..... **\$39<sup>95</sup>**

**WM-918** Complete Weather Monitoring Station Perfect for home, schools, farms and businesses where weather info is essential. Monitors over 20 weather & environmental conditions. Equipped with all necessary wiring & accessories; self-dumping electronic rain gauge; outdoor temp/humidity sensor; anemometer for wind speed & direction. Connects to personal computer w/opt. PC cable/software kit. Desktop control panel displays clock, calendar, alarm, weather readings on backlit LCD. Also features weather forecasting system w/graphical prediction icons displaying local 12-24 hour forecasts. Uses 8 AAA batt., AC adapter (incl.) 7 1/4" l x 4 1/4" w x 1 1/2" h, 14.8 oz..... **\$199<sup>95</sup>**

# Wireless Home Security

**X-10**, leader in the field of wireless home security and home automation, brings you these state-of-the-art products to protect your family & electronic equipment. Order a complete system or design one from a list of products & accessories. Home security monitors doors. Motion sensors cover wide areas in or around a house. It can call a friend or neighbor if activated. Ward off potential problems with REX, an electronic barking dog. X-10 provides home automation now! Hot coffee waiting in the morning, turn lights on/off & heat up/down automatically or at the push of a button. Runs from a PC ... **See Price Guide**

# SONY

**ICF-B200** Emergency AM/FM Radio with built-in High-Efficiency Power Generator Requires NO BATTERIES/EXTERNAL POWER SOURCE, but also operates using 2 "AA" batteries • Turning generator handle (charging) for one min. provides 30 minutes listening time; maximum 15 hours continuous use achieved by a 1 hour charge • **Emergency guide light** and illuminated display • **Audio beacon** can be switched on to guide others to you • Orange color stands out amidst foliage and makes location easy • Water-resistant seals help keep out water, moisture and dirt • Headphone jack • 3 3/4" x 6 1/4" x 2 1/2", 11 1/2 oz ..... **\$79<sup>95</sup>**



**Freeplay® Radio** Generates its own power - no batteries or external power needed. Perfect for activities, emergencies, power outages. Inside the Freeplay Generator (wind-up B-motor carbon steel spring driving generator thru trans.) produces oper. voltage. Short wind-up yields up to an hour of free listening, depending on model & vol. level. Built-in ferrite bar & antenna, external power & headphone jacks.

**FPR-2** (right) AM & FM broadcast band coverage, 60 min. oper. 8" h x 11 1/2" w x 8" d, 5 lbs, 5 oz... **\$69<sup>95</sup>**

**FPR-1B** (left) AM & FM plus 5.8 to 18MHz short-wave coverage, 30 minutes operation. 10" h x 13 1/2" w x 5 1/2" d, 6 lbs, 3 oz ..... **\$99<sup>95</sup>**

**AC ADAPTER** for BayGen FPR-2 only..... **\$10<sup>95</sup>**

**HEADPHONES** for BayGen FPR-2 only ..... **\$14<sup>95</sup>**

## Freeplay® Solar Radio

Same as FPR-2 above, w/addition of a solar panel powering radio when exposed to sunlight. Will run off panel alone in direct sunlight; as light decreases, radio automatically draws from spring. Clear plastic case shows off generating mechanism.

**FPR-2SC \$79<sup>95</sup> • FPR-2SM** same, gray case **\$79<sup>95</sup>**

**Freeplay® Lantern** A self-powered, illumination device working off its own internal generator or rechargeable battery. Each 30 second wind-up of the spring engine provides a minimum 3 minutes of light in "on" position and charges battery in "charge position." In battery mode you get 2 hours of light. Has auxiliary power output socket (3V, 350mA) and a high pressure Xenon filled ultra-brite bulb. Its weather resistant and made of rugged nylon and reinforced materials. Includes a 1Hz flasher unit (1 second on, 1 second off). 7" x 10" x 5 1/2", 4 lb. 7 oz ..... **BAY FP-SL \$69<sup>95</sup>**

WEATHER • SECURITY



## Shakespeare® VHF MARINE ANTENNAS

**396-1** Center-fed 1/2 Wave Coaxial Sleeve Antenna A basic 3dB antenna designed to reduce signal fading when working in rough seas. Widely used antenna on Coast Guard vessels. Use the 366-H ratchet mount..... **\$59<sup>95</sup>**

- 5 MHz bandwidth, 3dB gain, 50W
- White Shakespeare fiberglass
- Brass and copper elements
- Deluxe chrome-plated brass ferrule
- One section
- 5 ft. length, 15' RG-58 cable w/PL-259

**420 SKIPPER™** Center-fed 1/2 Wave Coaxial Sleeve Antenna Economical, and a good basic 3dB antenna for steady, day to day cruising in calm to moderate seas. Includes a polycarbonate lift/lay deck mount, leveling plate/hardware..... **\$59<sup>95</sup>**

- 5 MHz bandwidth, 3dB gain, 50W
- White Shakespeare fiberglass
- Brass and copper elements
- Polycarbonate ferrule
- One section
- 5 ft. length, 15' RG-58 cable w/PL-259

**497** Collinear-5/8 Wave Elements Popular, 6dB gain provides excellent range. Features smaller dia. enabling the antenna, rather than the mount, to absorb flexing. Use w/366-H deck mount .. **\$49<sup>95</sup>**

- 3 MHz bandwidth, 6dB gain, 50W
- White Shakespeare fiberglass
- Brass and copper elements
- Nylon ferrule
- One section
- 8' length, 15' RG-58 cable w/PL-259

**5206-C** End-fed Antenna w/Matching Stub Economical, lightweight and self-supporting antenna for good communications where range is not the predominant factor. Use with 366-H deck mount **\$39<sup>95</sup>**

- 3 MHz bandwidth, 6dB gain, 50W
- White Shakespeare fiberglass
- Chrome-plated brass ferrule
- One section • DC grounded
- 8' length, 15' RG-58 cable w/PL-259

**5202** Collinear-phased 5/8 Wave Elements A rugged, professional quality antenna featuring a heavier duty radome and tough brass and copper construction for maximum efficiency and extra range. Use with 366-H ratchet mount ..... **\$69<sup>95</sup>**

- 3 MHz bandwidth, 6dB gain, 50W
- White Shakespeare fiberglass
- Chrome-plated brass ferrule
- One section • DC grounded
- 8' length, 20' RG-58 cable w/PL-259

### 366H Ratchet mount

Chrome-plated zamac. 4-way ratchet design with handle for deck or bulkhead mounting. Has 9/32" hole for Loran cable feed-thru. Standard 1"-14 male threads..... **\$29<sup>95</sup>**



**GN-15150** Features an AM/FM radio with telescoping antenna, search light with blinker, directional fan with adjustable speed and a fluorescent lamp with dual 12W bulbs, high/low adjustable. Built-in rechargeable 6V, 10 A/H sealed lead acid battery with charger. Also runs on 110 or 240V AC. 19 1/2" h x 18" w x 4 1/2" d, 35 lbs ..... **\$119<sup>95</sup>**



## Rechargeable Fan, Light and Radio

## uniden Marine

**MC-1010** 80 channel Marine VHF Radio • All USA and International channels, 10 weather channels • Ultra compact rugged construction • Durable design microphone • Triple watch feature • Memory scan • Weather scan • 25 & 1W output • LCD display • External speaker jack • 12V DC @ 4.5A • 6 1/2" w x 4 1/2" d x 2 1/2" h, 1 lb. 12 oz ..... **\$139<sup>95</sup>**



**MC-1020** 80 channel Marine VHF Radio • All USA and International channels, 10 weather channels • Ultra compact rugged construction • Quik Command™ microphone with touch channel 16 and 19 key • Triple watch Plus™ • Memory scan • Weather scan and alert • 25 and 1W output • LCD display and dimmer, back lit keypad • Public address • External speaker jack 12V DC @ 5A • 6 1/2" w x 4 1/2" d x 2 1/2" h, 1 lb. 12 oz ..... **\$149<sup>95</sup>**

**MC-535** 80 channel Marine VHF Radio • All USA and International, 10 weather channels • Instant channel 16 • Memory scan • Dual watch • LED channel display • 25 and 1W output • Weather resistant • Front speaker, external speaker jack • 12 VDC @ 5A • 6 1/2" w x 7 1/2" d x 2 1/2" h, 2.4 lbs ..... **\$119<sup>95</sup>**



**HH-980** Deluxe 90 channel Marine VHF Handheld • Microprocessor controlled • All USA and International channels, 10 weather channels • Weather alert • Front-fire speaker • Watertight • All-channel scan • Instant channel 16 • 5/1W-selectable power • Dual watch/triple watch • LCD channel display • 7.5V @ 850mA from supplied rechargeable Nicad batt. pack • 2 1/2" w x 1 1/2" d x 5 1/2" h, 1 lb. 12oz **\$199<sup>95</sup>**

**HH-940P** 90 channel Marine VHF Handheld • All USA and International channels, 10 weather channels • All channel scan • Instant channel 16 and 9 • Triple watch electronic touch keypad • Backlit LCD display • 1W power output • Weather alert • Flexible rubber antenna • Keypad lockout • Battery charge indicator • Waterproof, lightweight and wearable • Rechargeable battery, drop-in charger • 2 1/2" w x 1 1/2" d x 4 1/2" h, 8.8 oz ..... **\$149<sup>95</sup>**

**HH-955** 90 channel Marine VHF Handheld • All USA and International channels, 10 weather channels • Memory scan • Backlit LCD display • Triple watch • Instant channel 16 and 9 • Weather alert 5 and 1W output • Flexible rubber antenna • Keypad lockout • Battery charge indicator • Weather resistant housing • Uses alkaline batteries or Ni-cad rechargeable battery (not included) 2 1/2" w x 1 1/2" d x 6 1/2" h, 19.5 oz ..... **\$129<sup>95</sup>**



## KENWOOD Marine

### TKM-707 SSB Radiotelephone

A high-performance unit designed to meet the stringent demands of marine operation. Utilizes a heavy duty rustproof aluminum chassis and the highest quality parts to maximize performance.

- 150W RF Output Power • 2 MHz to 23 MHz Marine Band Operation with 500kHz to 30 MHz General Coverage receiver • 198 Memory Channels • Multi-Scanning • 2182kHz emergency alarm built-in • Optional Tuner & More!

Special Order - **\$1249<sup>95</sup>**

## ICOM Marine

### IC-M710 SSB Marine Transceivers

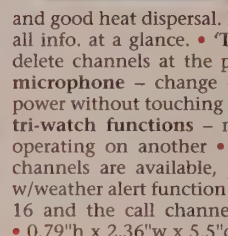
Rugged, 150W SSB Transceiver, 1136 channels with 160 user-programmable memories, PC programmable, alpha numeric readout on large LCD.

**IC-M710** (21) General version without 2182kHz alarm, marine bands only .... **Special Order \$1399<sup>95</sup>**

**IC-M710-05** (22) Open version, covers 1.6 to 27.5 MHz, has 2182kHz alarm... **Special Order \$1599<sup>95</sup>**

### IC-M45W VHF 25W Marine Transceiver

Water-resistant gaskets are used throughout, including the mic. The durable, one piece aluminum diecast chassis provides dependability and good heat dispersal. Large backlit display shows all info. at a glance. • 'Tag' scan system - add or delete channels at the push of a switch • 'Smart' microphone - change channels or select output power without touching the front panel • Dual and tri-watch functions - monitor channel 16 while operating on another • All International and US channels are available, plus 10 weather channels w/weather alert function • Instant access to channel 16 and the call channel • Low battery indicator • 0.79" h x 2.36" w x 5.5" d ..... **\$199<sup>95</sup>**



### IC-M3A Mini Handheld Marine VHF Radio

Programmable for U.S. and International channels plus 10 weather channels w/alert • Independent channel 16 • Full function and priority scanner • Dual/tri-watch - monitor channel 16 while operating another • 1/5W output • Large backlit display shows info. at a glance • Water resistant • Includes 6 NiCad batteries and wall charger 2 1/2" w x 5 1/2" h x 1 1/2" d, 14.4 oz ..... **\$189<sup>95</sup>**



## Aircraft

**A-22** VHF Air Band Transceiver Covers (COM) 118-136.975, (NAV) 108-117.95MHz and memory channels Programmed scan, memory scan & lock • 5W output • Instant 121.5MHz • NAV features: 200 channel VOR nav with CDI, radial heading TO/FROM VOR, auto bearing set • Semi-duplex, combines VOR/COM oper. • Incl. Ni-cad rechargeable battery and wall charger 2 1/2" w x 7 1/2" h x 1 1/2" d, 1.4 lbs ..... **\$549<sup>95</sup>**



## YAESU Aircraft

### VXA-100-6/41B Aviator Pro

Features: 5W TX power (PEP 1.5W typ.) • 8 character alpha numeric display • 3-way display titling • Internal sidetone • 300 memory channels • Automatic Noise Limiter (ANL) • One-touch emergency frequency access • 10 NOAA weather channel receive • Automatic active weather channel scan • Priority dual watch function • Back-lit keypad and display • One-touch control knob • RX battery saver • Optional battery case • PC programming capability • MIL-STD 810 approved Accessories Included: Nicad battery, Headset adapter and Belt clip ..... **\$409<sup>95</sup>**

**VXA-100-16/41B** Aviator Pilot Features are the same as VXA-100/6 with the addition of: VOR TO/FROM display • Course Deviation Indicator (CDI) display • Split channel operation ..... **\$549<sup>95</sup>**





**Each Magellan GPS includes a powerful 12 parallel channel receiver, wraparound rubber armoring, "EZstart" operation, auto averaging and a water-proof design.**

**GPS-2000XL** Offers amazingly fast satellite acquisition & tight satellite lock under the toughest conditions. Other features include: 24 contin. hours on 4 "AA" batt. • 7 navigation screens, 2 customizable • Scratch-proof display • Shock-resistant • 200 landmarks • Message attachment to landmarks • 5 routes with 20 reversible legs • Backtrack feature • Real-time track plotter • Sunrise/set and lunar phase calculations • Resettable trip odometer • Landmark projection • Upload/download capability, NMEA output • Lat./long., UTM, OSGB, MGRS, TD's, Finnish, Irish, Swedish & Swiss grid coordinate systems • Max. Speed: 950 mph • DGPS ready • Simulator program for training • Comes w/lanyard strap, User & Quick reference guides • 6.6" x 2.3" x 1.3", 10 oz..... **\$149<sup>95</sup>**

**GPS Tracker** Eight customizable navigation screens on a high-resolution display, 128 x 64 pixels • 30 hours of continuous battery life • 10-year internal lithium battery backup • Detachable super sensitive antenna for superior tracking • Built-in thermometer • Stores up to 500 user-entered locations & 20 reversible routes with 30 legs • 1200-point Smart Track • BackTrack with save as route option • Northfinder™ displays sun & moon positions, quickly determine desired direction • Comes with wrist strap, 4 "AA" batteries, and User & Quick reference guides... **\$229<sup>95</sup>**

**GPS ColorTRAK** Featuring the world's first high-resolution, color display in a portable GPS receiver, 128 x 64 pixels • Outstanding lock-on tracking • 8 graphic navigation screens including real-time multiple route plotter w/adjustable scale • Detachable super sensitive antenna for superior tracking • 30 hours of continuous battery life • Backlit display & keypad • 10-year lithium backup battery • Stores up to 500 user-entered locations & 20 reversible routes with 30 legs • Comes with carrying case, wrist strap, 4 AA batt., and User & Quick reference guides .... **\$279<sup>95</sup>**

**GPS-300** Magellan's "EZstart" operation • Dedicated keys • Super sensitive antenna - tracks 12 satellites • Shows speed, distance and time to destination, bearing and heading • Position Coordinates: LAT/LON, UTM, OSGB, Swiss, Swedish, Irish, Finnish • Stores 100 waypoints and 1 route with 10 legs • 24 hour battery life - (2 "AA") • Super Capacitor back-up for memory • High-contrast backlit display • Waterproof • Pocket-sized - 6"h x 2"w x 1.3"d, 6.8 oz..... **\$99<sup>95</sup>**

**GPS Map 'N Track CD** Includes: **GPS Link 3.0** - Land mapping software links to 2000XL, Tracker & ColorTRAK (See Price List for correct model number) • **Trip planner** - plan trips using GPS link maps; upload info and your GPS will direct you • **In-vehicle system** - connect your GPS to a laptop, track where you are on the map • **Trip recorder** - use GPS to record your track, download info and view path of travel on a digital map. **DataTrack** - GPS position and route data management software • Save and store more locations and routes. • Quickly edit and review saved locations and routes. • Create new locations, plot your trip for future reference. **Precision Mapping Streets 3.0** - Land mapping software that creates custom maps. • Find any place in the US. • Current and accurate information for most US streets • Create custom maps, over 100 drawing tools. Specify: GPS Map 'N Track CD with PC interface module and 110V AC adapter or with PC interface cable, only..... **CLOSEOUT \$89<sup>95</sup>**



See Price Guide for selection of Magellan & Garmin Accessories

**Garmin's Personal Navigator GPS receivers are low-cost and full-featured. This family of satellite navigation equipment can guide you anywhere you want to go.**

**GPS-12XL** Powerful 12 channel receiver for fast, accurate positioning. Designed for boaters, hunters and hikers. PhaseTrac 12 parallel channel receiver for fast position fixes in the toughest conditions including tree canopy and urban obstructions • Rugged, compact case that meets military 810(e) specs • External antenna, internal beeper alarm • 500 user waypoints with alphanumeric name and user comments • 20 reversible routes of up to 30 waypoints each • TracBack navigation automatically turns your track log into a route back home • Nine proximity waypoint alarms • Over 1000 track log points position averaging, emergency erase, and cloning features • Up to 12 hours battery life on four AA batteries (not supplied) ..... **\$269<sup>95</sup>**

**StreetPilot** Dashboard Mount GPS Receiver Portable, 12 parallel channels • Built-in map of the Americas with state/country boundaries; lakes; rivers; cities; U.S. state, and interstate highways and some local thoroughfares • Accepts GARMIN cartridges showing residential streets, addresses and points of interest • Large high resolution 240 x 160 pixel display • Three-level bight amber backlit screen and keypad • Automatic turn by turn guidance with manual route selections • Automatic waypoint and route naming • Storage for 100 waypoints (not including points of interest) • Trip planning and computer • Zoom key - 120 ft. to 800-mile range • Dashboard screen showing current trip segment, distance, direction • Clock alarm, arrival alarm • Six AA batteries for up to 16 hours of use, lithium back-up..... **\$499<sup>95</sup>**

**GPS-III** Features road maps - without plug-in cartridges. State-of-the-art two-way screen display for vertical or horizontal orientation. Dedicated zoom keys, diagonal panning, auto start/stop trip timer, average & maximum speed recordings. Operating system continuously tracks up to 12 satellites • Rocker keypad, backlit LCD display, full featured moving map plotting • Dedicated keys for zooming from 0.2-360 miles • User selectable navigation screens for compass or graphic highway steering guidance • Two-way screen flips horizontal or vertical with push of a button ..... **\$299<sup>95</sup>**

**NavTalk™** First 2-way communication system to combine electronic mapping & GPS to cellular technology. All func. of full-featured cell phone • DTMF location reporting - subscribe to roadside assistance which receives distress messages (latitude and longitude also reported) • Electronic phonebook stores 100 entries • Links to calling card and PIN numbers • One-button emergency activation • Internal, electronic map covering U.S., Canada, and South America, including interstates, state highways, secondary metro area roads, airports, and rivers • Comes w/database of exit info for federal interstate highway system • Information on available services (food, lodging, fuel) viewed on moving screen • Innovative CD ROM feature - plug into PC and download data from Garmin's optional MapSource™ CDs: U.S. Roads and Recreation (010-10215-00) and World Map (010-10215-01 Special Order) ..... **\$569<sup>95</sup>**



**Earthmate™ GPS Receiver for Laptop PC - \$159<sup>95</sup>**

The new GPS Receiver from DeLorme features a slim design, the latest GPS chip technology from Rockwell, enhanced performance, and award-winning Street Atlas USA 6.0 software\*. Connect to laptops and Windows® CE or 3Com® Palm Computing handhelds. Use the new Solus™ PRO handheld mapping and routing application available separately from DeLorme.

\*Street Atlas USA® 6.0 is the latest version of America's most detailed street-level mapping software includes one million new streets, address-to address routing, enhanced GPS features including GPS voice navigation, expanded exit service information, and compatibility with Window®, CE and 3Com® Computing handheld computers. Lightning-fast search by individual street address, placename, area code and exchange, Zip code or lat/long. Create a sharp, detailed Travel Plan with your stops, driving time, and more. Connect to online weather, construction, and other useful travel information.

(Included with the Earthmate™ GPS Receiver)



**TOPO USA™ CD-Rom - \$99<sup>95</sup>**

From the maker of Street Atlas USA - now hikers, bikers and outdoor enthusiasts can preview topographic terrain in all 50 states and plan the perfect outdoor adventure. Profile hikes and backroad trips for elevation, distance and degree of difficulty using the cross-

sectional view. Select 3-D or 2-D views. Create on-road and off-road routes. Print detailed color topographic maps. Works with the DeLorme GPS Receiver, 3Com®, Palm Computing® and popular Windows® CE handheld computers

## Kantronics

**K-1 1W 2-meter Transmitter Kit** Crystal controlled, over 1-watt output, ideally suited for GPS/APRS applications. Requires 12V DC @ 300mA. Compatible with KPC-3, KPC-3 Plus, KPC-9612, KPC-9612 Plus, KAM, KAM Plus, and KAM '98 TNC (modems). The kit includes: a two-sided printed circuit board, DB-9 Pcb mount connector, assembly and application manual, schematic, a 144.390 MHz AT cut crystal, and necessary parts to complete the board. It does not include a case, external male DB-9 connector and cabling, any test equipment, or hand tools.

The printed circuit board is 3.5" by 4.97". The PCB is two sided, FR-4 material and includes parts legends on the component side. The assembly and application manual includes the following: prompt sheets showing where to insert the parts and in what order, instructions for attaching the transmitter to a KPC-3 Plus (or similar) TNC, tuning procedures, and operating instructions.

Warranty Disclaimer: Kantronics assumes that the user is familiar with electronic assembly techniques and soldering, and can identify the parts included. Kantronics assumes, additionally, that the user is capable of or can get help from a friend in tuning and testing the transmitter. Kantronics provides no warranty for the kit. The kit is sold "AS IS." The printed circuit board or individual parts for the kit are not sold separately ..... **CLOSEOUT \$79<sup>95</sup>**



## Recommended CB Antennas

## ANTENNA SPECIALISTS

**M-906** "On-Glass" no holes mounting. Cellular "look alike" - 12" long. Comes w/15' cable & PL-259 connector. For mounting convenience & when ext. range is not required... **Closeout \$59<sup>95</sup>**

## COBRA

**AT-70** Magnet mount 38 1/2" base loaded mobile antenna. with 17 ft. coax and connector... **\$24<sup>95</sup>**

## HUSTLER

**HQT** 55" top loaded whip with Mirror Mount bracket. Comes with 12 ft. cable with PL-259 connector. Chrome with a white coil... **\$27<sup>95</sup>**

**HQ-27M** 55" top loaded whip with Trunk-lip Mount. Comes with 15 ft. cable and PL-259 connector. Chrome with a white coil... **\$36<sup>95</sup>**

## LARSEN

**NMO-27C** Base loaded 1/4 wave mobile .... **\$33<sup>95</sup>**

**NMO-TLP** Low profile trunk mount for NMO-27. Comes with 17 ft. coax and PL-259... **\$27<sup>95</sup>**

**NMO-MM** Magnet mount for NMO-27. Comes with 12 ft. coax and PL-259 connector ..... **\$30<sup>95</sup>**

## SOLARCON

**A-99** Base Station Antenna. Three-piece fiberglass design uses a half wave over a quarter wave section, and is tunable Entire 17 ft. 8 in. length radiates producing about 3 dB gain ..... **\$64<sup>95</sup>**

**GPK-1** Ground place kit for A-99. Adds 30% more power gain and lower angle of radiation..... **\$39<sup>95</sup>**

## WILSON

**1000** 5 ft. base loaded mobile antenna. Available in three mount configurations. All come with 18 ft. cable and PL-259 connector.

**Roof**, thru-hole mount ..... **\$54<sup>95</sup>**

**Trunk** mount ..... **\$62<sup>95</sup>**

**Magnet** mount ..... **\$72<sup>95</sup>**



## CB Radios

## GRANT-XL

AM/SSB Mobile CB Radio

Full 40 channel

operation - PLL synthesized • Single sideband -12W PEP (AM, 4W) • Channel indicator - two seven-segment LEDs • Microphone gain, RF gain and clarifier controls • NB/ANL switch - controls noise blanker (reduces engine automatic noise limiter, & background interference) • PA/CB switch, dimmer control • Multifunction meter - indicates relative RF output, modulation, SWR and receive signal strength • TX/RX indicator, tone HI/LOW switch • 7 1/2" w x 9 1/2" d x 2 1/2" h, 5 lbs..... **Closeout \$159<sup>95</sup>**

## PC-76XL

AM

Mobile CB Radio

with Weather

Reception Full 40

channel operation

- PLL freq.

synthesized

NOAA weather

channels w/alert

(up-to-date weather information and Weather Alert)

• Instant channel 9 • Microphone and RF gain

controls • Delta tune control - Fine tunes received

signal and reduces interference • Noise blanker and

automatic noise limiter • PA/CB switch • Dimmer

control • TX/TX LED indicators • Antenna warning

LED - lights when high SWR condition is present

• 7 1/2" w x 8 1/2" d x 2 3/4" h, 4 lbs. 3 oz **Closeout \$99<sup>95</sup>**

## PC-76XLW

Same basic features as the PC76XL

with the addition of NOAA Weather Channel

reception with Weather Alert ..... **Closeout \$119<sup>95</sup>**

## PRO-520XL

Compact 40 Channel

AM Mobile CB Radio

4W • Instant channel

9 access • 4- segment

S/R meter • TX LED

• LED channel

indicator • RF gain

• PA switch • Auto-

matic noise limiter Fits almost anywhere - only 4 1/2" w x 6 1/4" d x 1 1/2" d, 1 lbs. 10 oz..... **\$59<sup>95</sup>**

## PRO-350XL

Ultra Compact AM

Handheld CB Radio Selectable 1 or 4W

output • Instant weather - auto scans all

NOAA channels for up-to-the-minute

weather data • Channel scan - monitor

all 40 channels, scanning and stopping

on active channels • Instant access to

channel 9 & 19 • Dual watch -

monitoring one user selectable primary

channel plus one secondary channel

• NiCad/ alkaline battery pack - requires

9 "AA" batt. • S/R meter - 6 segment

LCD shows the signal strength and

transmitter output • Channel selection

via up/down keys • Low batt. indicator

• Fused cigarette lighter plug & belt clip

• 2 1/4" x 1 1/4" d x 6 1/2" d, 1 lbs. 12 oz. **Closeout \$89<sup>95</sup>**

## 900MHz Cordless Phones

Providing Extended Range & Cleaner Communications

## EXP-7902

Cordless Phone

w/Voice Scramble 40

channel auto-scan • Voice

scramble security • Ultra-

Clear plus noise reduction

• 10 mem. • 3 One-touch

priority keys • 7 hrs talk time

• Long-life batt. • 32 digital

redial • Page/fine feature

• Desk/wall mount .... **\$59<sup>95</sup>**

## EXA-7950

Cordless

Telephone with Digital

Answering System

Integrated digital answerer • 40

channel autoscan • Time &

day stamp • Remote message

retrieval • 15 min. record

time • Base spkrphone • 10 #

mem. dialing • 3 one-touch

priority keys • 14-day stand-

by • Desk/wall mount **\$89<sup>95</sup>**

## EXS-9110

Digital Spread

Spectrum Cordless Phone

Best privacy • 20 number

mem. • 4 one-touch mem.

keys • Battery back-up/re-

charge • 20 channel autoscan

• Headset compatible • 10

day long-life battery • Page/

fine feature • AutoTalk™ &

AutoStandby™ ..... **\$99<sup>95</sup>**

## EHD-1200GB

Harley Davidson®

900MHz Cordless

Telephone

Exclusive Harley

phone crafted by

Uniden to replicate

the Harley gas tank.

• 900MHz extended

range • 40 channel autoscan • 10 number memory

dialing • 3 one-touch speed dial keys ..... **\$99<sup>95</sup>**

## CHEROKEE™

**AH-27** Portable CB Radio

One-touch

Emergency Channel access • Battery life

enhancement circuitry • 5 memories • 15

segment signal strength meter - provides info.

on the strength of incoming & transmitting

signal • Hi/Low power selection • Dual

watch channel monitor - automatic

monitoring between any two channels

• Key lock • Slide-on rechargeable batt.

system - use either standard AA alkaline

or rechargeable AA nickel-cadmium (not

incl.) • Flexible antenna - BNC type

connection • 40 channel capability -

access to all CB channels • ChannelScan

• Squelch control - eliminates

background noise when no signal

is present • Wrist strap & belt clip incl ..... **\$119<sup>95</sup>**



Technology that dramatically improves the transmission and reception of radio signals. "Cuts Noise Coming In... Strengthens Signals Going Out!" The result is a cleaner, clearer sounding radio with more "powerful" transmissions and less static or noise on reception.

## 29LTD ST

AM Mobile CB

Radio SoundTracker™

System • Maxi RF

output power

• Combination

S/R meter

• Built-in SWR

indicator • Switchable

automatic noise limiter and noise blanker • Instant

channel 9 and 19 • Delta tune clarifier • CB/PA

switch • Dimmer switch • RX/TX indicators • 4 1/2" x

1 1/2" x 6 1/2", 2 1/2 lbs..... **\$149<sup>95</sup>**

## 29WX ST

AM Mobile CB with Weather

Band Same looks and basic features as the

29LTD ST with addition of a CB/WX

switch to select between CB operation and

weatherband mode. This allows reception

of 7 NOAA VHF weather channels. If threatening

weather is nearby, the National Weather Service

may broadcast a 10 second alert tone which will be

heard through the CB, even if the CB/WX switch is

in CB mode. (dual band ant., such as Wilson 1000,

recommended for best WX reception ) ..... **\$159<sup>95</sup>**

## 148GTL ST

Full

Featured AM/SSB

Mobile CB Radio

12W PEP SSB RF

output - increases

range capa-

bilities with SSB

oper. • 4W AM RF power (FCC

max. allowed) • 120 channels - full 40 & 80 of SSB

oper. • Dual conversion AM receiver - designed to

maximize freq. response & image/spurious rejection

• Additional Features: USB/LSB/AM oper., Digital

channel indicator, RX/TX indicators, Switchable

noise limiter & blanker, RF-gain control, Hi/Low

tone switch, PA capability, SWR indicator, instant

channel 9 • 7 1/4" x 2 1/4" x 8 1/2", 6 lbs..... **\$169<sup>95</sup>**

Reflecting trends in new

vehicle designs, this mobile

has sculpted features and

muted graphics

giving it a

dynamic look

that will

complement any

vehicle of today. Easy install into most vehicles.

## 19DX II

Compact AM Mobile CB Radio Electronic

tuning/40 channels - down/up tuning buttons

• Digital channel display • 4W RF output power -

(max. FCC allowed) • Instant channel 9 - instant

access to National Emergency Channel for help

• Combination S/R meter - indicates incoming

signal strength and RF output • CB/PA switch -

selects CB oper. or PA operation for communicating

outside the vehicle • 4 1/2" x 1 1/2" x 6 1/2", 2 1/2 lbs **\$49<sup>95</sup>**

## AH-100

AM/SSB Portable CB Complete 40

channel AM/USB/LSB oper. • 6 1/2" tall • Digital

LCD "Info. Center" provides complete

operation info • 5 preset mem. • Slide-out batt.

system holds 9 AA Ni-Cad batteries (incl.)

• Battery life enhancement circuitry

• Mobile-Com adapter - ability to use

radio just like a standard CB • Direct

connection to external antenna & uses

cigarette lighter socket • Auto channel

scan • "Dual Watch" monitors 2 channels

at a time • Clarifier control - fine tuning

SSB • Mic-gain & RF-gain for max. signal

processing • Squelch control • Key lock

• One-touch access to Emergency

Channels 9 & 19 • Selectable High/

Low power output • Wrist strap & belt clip • Plug-in

jack for external speaker/mic (not incl.)..... **\$279<sup>95</sup>**



# FRS Family Radio Service

For non-commercial use. FRS shares GMRS frequencies but you do not need a license to operate. Uses include: family communications while camping, taking trips to the beach, hiking, walkings, jogging, parks, amusement spots, skiing, mobile caravans, etc. Any trip where two or more people need to stay in touch for safety or convenience. Power - 100mw to 0.5W ratings of hand held portables allow range of up to 2 miles, line of sight.

# GMRS General Mobile Radio Service

A personal radio service available to an individual with the proper FCC license. It is a two-way voice communication service to facilitate the activities of the individual's immediate family members. You can discuss your own commercial and/or family business activity. Higher powered two to five watt hand-held portables allow communications over one to five miles.

## MOTOROLA

### FRS RADIOS

14 FRS Channels:

462.5625, 462.5875, 462.6125,  
462.6375, 462.6625, 462.6875,  
462.7125, 462.7375, 462.7625,  
462.7875, 462.8125, 462.8375, 462.8625,  
462.8875, 462.9125 MHz

### Common Features:

38 interference eliminator codes • Built-in hands free oper. (VOX) - when used with opt. audio accessory • Time-out timer • Transmit light • Audible low batt. alert • Operators manual • 3 1/2" h x 2 1/4" w x 1 1/4" d x 6 1/2" h w/antenna • 1 year warranty

### TalkAbout

Additional Features:

• "Talking" channel confirmation • Audio accessory connector • Removeable belt clip  
**50988** (Grey) ..... **\$79<sup>95</sup>**

### TalkAbout 250

Additional Features:

• Scan • "Talking" channel confirmation • Battery meter • LCD display • Audio accessory connector • Removeable belt clip  
**53543** (Camo) ..... **\$119<sup>95</sup>**  
**53590** (Blue) ..... **\$109<sup>95</sup>**  
**53592** (Black) ..... **\$109<sup>95</sup>**

### TA280 SLK (NiMH battery)

Additional Features:

• Programmable scan • Multiple audible call alerts • Multiple VOX sensitivity levels • Electroluminescent display • Lock/light button • Auto-power off • Battery meter indicator • Single pin audio accessory connector • Removeable carry holster • Alkaline batt. tray • 6.05oz w/three AA batteries  
**53716** (Black) ..... **\$189<sup>95</sup>**

### GMRS RADIOS

GMRS Interstitial Frequencies

462.5625, 462.5875, 462.6125  
462.6375, 462.6625, 462.6875  
462.7125MHz

GMRS Primary Frequencies

462.5750, 462.6250MHz

GMRS "Emergency" Frequency

462.6750MHz

• 38 Interference eliminator codes

• Built-in VOX operation

(when used with opt. audio acc.)

• Scan capability

• Voice-assisted programming

• Low battery alert • Transmit light

• Audio accessory connector

• Removeable spring action 2.5" belt clip

• Rechargeable battery • 10hr charging adapter

### TalkAbout DX

• 2W • 5.25" h x 2.5" w x 1.25" d, 11.1 oz

**53544** (Grey) ..... **\$199<sup>95</sup>**

### TalkAbout DXDPS

Additional Features:

• Alkaline battery tray (6 AA batts. not included)

• 2W • 6.25" h x 2.5" w x 1.25" d, 11.7 oz.

**53547** (Grey) ..... **\$219<sup>95</sup>**



## maxon

### GMRS RADIO

**GMRS-21X** GMRS Radio 1W RF output • 2 channels: - 462.575/ 462.625 MHz • Includes rubber duck antenna, slide-on rechargeable Ni-Cad battery pack, AC/DC wall charger, belt clip and 4 AA alkaline battery holder • 5 1/2" h x 2 1/4" w x 1 1/4" d ..... **\$149<sup>95</sup>**

### 49 MHz FM Personal Communicators

Low power, 1/4 mile ave. range • Dual conversion superheterodyne receiver provides crisp, clear voice transmission • Compatible use for group communications • Push-to-talk or voice activated (VOX) - talk-to-transmit • No license required

**CHANNELS:** A - 49.830 MHz; B - 49.845 MHz; C - 49.860 MHz; D - 49.875 MHz; E - 49.890 MHz

### MX-49SX

A Single channel unit with a lightweight adjustable headset with retractable whip antenna and boom-microphone with windscreens. LED power indicator, battery charger jack. Range up to 1/4-mile. Uses two "AA" alkalines or rechargeable nicads. 5" w x 2 1/2" h x 1" d, 9 oz. Specify channel A, B, or E ..... **\$29<sup>95</sup>**



### MX-49FX

5 selectable channels (A, B, C, D & E). The unique earphone and microphone pick up voice vibrations from the ear canal for transmit audio and also provides received audio. Will not interfere with helmets. Built-in antenna gives up to 1/8-mile range. Remote PTT button & channel selector. Uses three "AA" batteries. 5 1/2" w x 3" h x 1" d 6 oz. .... **\$49<sup>95</sup>**

### MX-49HX

5 selectable channels (A, B, C, D & E). Great for motorcycling, snow mobiling, etc. The helmet adaptable headset has a whip antenna and boom microphone with windscreens. VOX or PTT with on-unit or remote switch. Front mounted OFF/ON, volume, VOX sensitivity and channel selector. Jacks for optional passenger intercom headset. Uses three "AA" batteries. 5 1/2" w x 3" h x 1" d, 6 1/2 oz. .... **\$49<sup>95</sup>**



### PC-50 Handheld Communicator

5 selectable channels (A, B, C, D & E). Operate with or without the detachable headset with boom microphone, windscreen and whip antenna. Call-tone alerts person that you want to contact. Compatible with all Maxon 49MHz radios. Uses three "AA" batteries. 6" h x 2 1/2" h x 1 1/2" d, 8.2 oz. .... **\$49<sup>95</sup>**

## Family Radio

### ALINCO



**DJ-S46** 300mW output • 14 FRS channels, CTCSS encoder • 1750Hz courtesy beep & keystroke beep • Scanning • S/output indicator • Lighted display • Auto power off • Uses 3 "AA" alkaline or NiCad batt. or ext. power • 4" h x 2 1/2" w x 1 1/4" d ..... **\$119<sup>95</sup>**

### MIDLAND

**75-510XLB** 500mw • 14 channels, 38-tone coded squelch • High-speed scan • PTT/VOX • 3 "AA" rechargeable nicad batteries and wall charger included • 4 1/4" h x 2" w x 1 1/4" d ..... **\$89<sup>95</sup>**



### KENWOOD

**UBZ-LF14** 300mW output • 14 FRS channels • Channel scan • Privacy tone squelch (CTCSS - 38 tones) • Call tone paging • Voice Inversion Scrambling system for privacy • Fold-down antenna • Uses three "AA" or NiCad batteries • 4" h x 2 1/4" w x 1 1/4" d ..... **\$119<sup>95</sup>**

### ICOM

**IC-4008A** 500mW • 14 FRS channels; 38 Group channels • "Call-Ring" and "Smart Ring" functions provide telephone-style ring with 10 different tones • Automatic transponder function automatically checks station availability and alerts you via function display indication • Fold-down antenna • Water resistant • Requires 3 "AA" alkaline batteries - 30+ hours • 4 1/2" h x 2 1/4" w x 1" d ..... **\$109<sup>95</sup>**



### vertex YAESU

**VXF-10** Adventurer 500mW output • 14 channels • Digital coded squelch (DCS) • Automatic Range Transponder System (ARTS) - ensures remaining in communications range • Receives nine different NOAA VHF weather channels • Uses three "AA" alkaline or Ni-cad batteries - 30 hours (typical: alkaline) • 4 1/4" h x 2 1/4" w x 1" d ..... **\$119<sup>95</sup>**



### Courier

### PROCOM Low Power VHF & UHF Handhelds

Ideal for Short Range Communications  
Recreation • Construction  
Factories • Security

**Features Include:** 10 synthesized programmable channels • Low/Med/High transmit power, 5W full output • Range 1 to 3 miles • Channel LCD digital readout • Channel scan w/channel lockout • Rechargeable nicad battery, AC charger, flexible antenna • Jacks for AC charger, earphone, external speaker/microphone, and external antenna with BNC connector • Optional programmable CTCSS tone squelch • F.C.C. license application included • 4 1/4" h x 2 1/4" w x 1 1/4" d, 15 oz

**M-510\*** VHF model - programmable from 144 to 174MHz ..... **\$269<sup>95</sup>**  
**MU-510\*** UHF model - programmable from 440 to 470MHz ..... **\$299<sup>95</sup>**

\*M-510 & MU-510 require programming

First unit ... **\$54** - additional units ... **\$27** each

**M-54** Similar features as models above. 5W with four channels. Comes with one channel installed for 151.625MHz. 7" h x 2 1/4" w x 1 1/4" d, 1 lb .... **\$199<sup>95</sup>**

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PERSONAL COMMUNICATIONS





**HAL COMMUNICATIONS CORP.**

### P-38 Multi-mode HF Modem

A full-size 13 1/2" DSP card for all AT compatible PC's. Provides the best all-around performance on CLOVER, PACTOR, AMTOR and RTTY. Does not require the use of Comm ports or IRQ's. Operating software for your PC is included. Latest updates are available through the HAL Techline and the Internet. Third party software, such as EXPRESS, RAGCHEW, WF1B is available. One-year warranty... **\$295<sup>95</sup>**



### DXP-38 Multimode HF Modem

Stand-alone DSP Modem providing excellent performance on CLOVER, RTTY, ASCII, AMTOR and

P-Mode. Both DOS and Windows (95, 98 and NT 4.0) software are provided at no additional cost. Uses the same serial I/O commands as the DSP-4100 and will operate with any third-party software written for the DSP-4100. 12V DC @ 0.6A. 3" x 7 1/2" x 10 1/2". One-year warranty... **\$395<sup>95</sup>**

### RTTY-1 Tuning Indicator

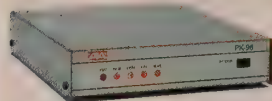
Easy to use and very accurate. Works with virtually any FSK radio modem. The crossed LED bars show correct tuning for all popular FSK modes including Baudot Teletype (RTTY), ASCII Teletype, AMTOR, SITOP, P-Mode, HF Packet Radio. Filters: 2125 Hz (Mark), 2295 Hz (Space) 5.5" w x 3.75" h x 1.25" d, 0.5 lb. Requires +9V-18V DC @ 160 ma... **\$99<sup>95</sup>**



[www.halcomm.com](http://www.halcomm.com)

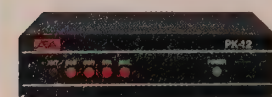


**TIMEWAVE TECHNOLOGY INC.**



**PK-12 1200 bps VHF/UHF TNC**  
1200 bps, VHF Packet-ready; Gateway as a Node; PC PakRatt Lite™

Control software included; APRS™ software included; APRS Adapter Cable available; AEA Host mode; Advanced command set; Identify TCP/IP, TheNet and NetRom; GPS firmware and commands; Stand alone tracking; External TX adjustment. Perfect for base station, loaded with features for mobile. 12V DC, or accepts a 9V battery. 5 1/2" w x 5 1/4" d x 1 1/2" h, 12 oz... **\$99<sup>95</sup>**

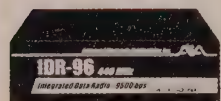


**PK-96 9600/1200 packet TNC**

9600/1200 bps packet-ready; GPS firmware standard;

Remotely program. GPS commands; Stand-alone tracking; Hardware HDLC for accuracy; True DCD to hear weak signals; Gateway as a node; TheNet X-1J node firmware option available; Full MailDrop facility; PC PakRatt Lite™ terminal control software & APRS™ software incl.; AEA host mode; Advanced command set; Identify TCP/IP, TheNet & NetRom; Separate external TX for 9600/1200 bps adjustments; External reset. Windows™ & Macintosh™ program available. Requires 12V DC. 6 1/2" w x 7 1/2" d x 1 1/2" h, 1 1/4 lbs. With 32K RAM (18K Mailbox)... **\$169<sup>95</sup>**

**PK-96 100K** or with 128K RAM... **\$199<sup>95</sup>**



**IDR-96 Integrated 440MHz 9600 bps Data Radio**

Features PK-96 TNC technology and a 5W, crystal controlled radio operating on 441.05 MHz. Simple operation, no tuning! Full featured mailbox; Gateway node operation; Advanced GPS; Identification of TCP/IP, TheNet; and NetROM stations and more! PC PakRatt Lite™ and APRS™ software included. 12VDC... **CLOSEOUT \$329<sup>95</sup>**

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**Multimode Data Controllers**



### KPC-3 Plus/128 • \$174<sup>95</sup>

- 1200 bps - Now with more features
- Packet, GPS/APRS, Host, KISS and WEFAX modes, use with EMWIN
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- Remote access, sensing and control with two A/D and two control lines
- PBS 100k, expandable with optional 512k RAM

### 9612 Plus/128 • \$349<sup>95</sup>

- 1200 port AND second port of 4800-38,400 bps
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- Unique design allows the addition of another port, high or low speed
- Remote access, sensing and control capability
- Telemetry transmission capability

### KAM 98 • \$399<sup>95</sup>

- **Single Port** multimode TNC for HF and VHF use
- All the modes of KAM Plus with addition of A/D inputs/TTL outputs
- HC11 for more processing power to accommodate future upgrades
- Wider range of speeds; use 1200 bps packet on 10M

### KAM Plus • \$369<sup>95</sup>

- Dual port VHF/HF (1200/≤300 bps) multimode TNC
- Packet, GPS/APRS, Host, KISS, WEFAX, CW, RTTY, AMTOR, PACTOR, G-TOR®, TOR, and Free Signal Detection for HF e-mail
- 100k personal mailbox standard, expandable with optional 512k RAM
- Remote access capability
- NEWUSER mode and on-line help

## PacComm Packet Radio Systems, Inc.

[www.paccomm.com](http://www.paccomm.com)

**Pico 128K** Miniature TNC Z-181 high integration MPU with one megabyte address space • Online help • Personal message system • APRS • Terminal programs for DOS and Windows included • Open squelch DCD circuit included • Optional internal GPS receiver & Slide-on battery pack option • Slide-on battery pack option 1" h x 2 1/2" w x 3 1/2" d • Standard model with 128K RAM... **\$149<sup>95</sup>**

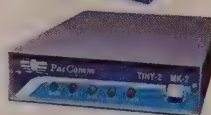
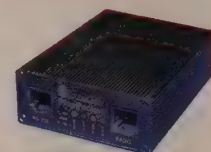
**Pico Dual 128K** Dual Serial Port model - adds hardware clock and second serial port for GPS or weather station to the standard model... **\$199<sup>95</sup>**

**Tiny-2 MK-2** Multi-purpose Basic TNC 32K RAM • TNC-2 EPROM compatible WA8DED host mode • KISS mode for satellite and TCP/IP Telemetry via RS-232 or TTL port • Disconnect header (will accept any TNC compatible modem) Packet communication for a weather node • 45ma. draw • 5" h x 7" d 1 1/2" h... **\$149<sup>95</sup>**

**Tiny-2MK-2/GPS** Tracker Basically the Tiny-II with a built-in GPS unit. Supplied with a small magnetic-mount Trimble GPS antenna... **\$499<sup>95</sup>**

**Spirit-2** High Performance Packet Controller Designed to be configurable by setting jumpers and installing optional logic devices to support various tasks without performance compromise... **\$239<sup>95</sup>**

**HandiPacket** Packet controller Ideal for portable or mobile operation • Loaded with features • Built-in 10-hour battery pack • 1.28" h x 2.55" w x 4.15" d. **\$229<sup>95</sup>**



**MFJ ENTERPRISES, INC.**

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### 1278B Multi-mode Data Controller

10 modes: PACTOR, 16-level FAX, Color, SSTV, PACKET, AMTOR, RTTY, ASCII, CW Navtex and Memory Keyer. Enhanced Mailbox, 32K RAM, 16-gray level modem, 20 LED tune indicator, Auto Signal Analysis, MARS mode, sidetone amplifier, internal modem header, 10 programmable message buffers, packet connect bell, dual radio ports, "Has Mail" LED, KISS interface, Host mode, Threshold control, RS-232/TTL ports. 12 VDC 9 1/2" w x 9 1/2" d x 1 1/2" h... **\$269<sup>95</sup>**

**1278B/DSP** The 1278B w/DSP filter... **\$349<sup>95</sup>**

**1278BT** Same as MFJ-1278B except Turbo version, includes a fast 2400 baud modem... **\$299<sup>95</sup>**

**780 DSP Board** Plug-in "brick wall" DSP data filter for MFJ-1278 or MFJ-1278B... **\$89<sup>95</sup>**



### 1270C TAPR TNC-2 Clone

Interfaces computer with RS-232 serial port and terminal program for VHF/UHF, OSCAR and other non-FM packet. Switchable HF/VHF modems. EasyMail™ personal mailbox, WeFAX. KISS interface for TCP/IP, 256K EPROM & 32K RAM. TTL serial port, batt. back-up. AX.25/Level 2-V2 software, hardware HDLC-full duplex, true data carrier detect for HF, multiple connects. interface cable, serial port connector and AC adapter. 12 VDC. 9 1/2" x 7 1/2" x 1 1/2"... **\$109<sup>95</sup>**

**1270CT** Has all features of the 1270C plus built-in 2400 baud modem... **\$139<sup>95</sup>**

**1270CQ** Has all features of the 1270C, plus built-in 9600 baud G3RUH compatible modem... **\$219<sup>95</sup>**

**2400** A 2400 baud modem, operates 300, 1200 and 2400 baud packet. For any radio... **\$29<sup>95</sup>**

**9600B** A G3RUH compatible 9600 baud modem. Not all radios compatible with 9600 baud. Easy installation in MFJ TNCs... **\$99<sup>95</sup>**

### 781 DSP for all TNCs

Separate unit gives your TNC (Kantronics, etc) Digital Signal Processing power... **\$119<sup>95</sup>**



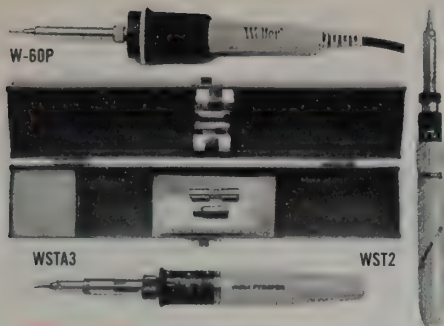
### 1272B/M TNC

Switch Pushbutton selection for voice or digital. Specify radio and TNC connection. **\$39<sup>95</sup>**



See the Price Guide under MFJ for packet Software and Accessories for these products





## WELLER Solder Equipment

**W-60P** 60-W Pencil-type Soldering Iron For most circuit work. Supplied with 1/16" 700°F screw-driver tip. 7 1/2" long, 2 1/2 oz., 6 ft. cord, 120V ..... **\$62<sup>95</sup>**

**WP-25** 25W Pencil-type Soldering Iron For work on delicate electronic circuits. 750°F tip temperature. 7 1/2" long, 1 1/2 oz., 4 ft. cord, 120V AC ..... **\$32<sup>95</sup>**

**WSTA3** Pyropen® Butane Soldering Iron Lightweight & completely portable. Operates for up to three hours on a charge of regular cigarette lighter butane. Soldering temperature control is adjustable from 392° to 932°F, with a very fast heat-up time. It's ready to solder in just 30-seconds! Supplied with tips for soldering, hot air (1202°F), and brazing.... **\$99<sup>95</sup>**

**WST2** Pyropen® Jr. A portable mini butane powered soldering iron. Recharges in seconds from a regular cigarette lighter butane container. The soldering temperature is adjustable from 392° to 842°F. Also, hot blow feature (806°F) and torch feature (2372°F). Has handy pocket clip ..... **\$86<sup>95</sup>**

**7200PK** Soldering Gun Compact, lightweight, 75 watts for bigger work. Handles connectors and almost any other heavier soldering job. The flat, self-supporting back acts as a convenient rest when not in use. With Carrying case, extra tip and solder. 120VAC... **\$27<sup>95</sup>**

**WTCPT** Controlled Output Soldering Station This pencil iron is safe for soldering ICs. Power unit with unitized on-off rocker switch with indicator light. Storage tray holds extra tip & cleaning sponge. **\$119<sup>95</sup>**

**EC-1002-1** Soldering Station Compact. Soldering pencil stand connects to right or left side of unit. Variable temperature, indicator light, self feeding reservoir with cleaning sponge. Tray stores extra temperature sensing tips ... **\$199<sup>95</sup>**

## WAHL

**7740** Cordless Soldering Iron Provides tip performance up to 50 watts & over 700°. Contains premium nicad rechargeable battery for high-rate charging; a partially discharged unit will return to full capacity within 1 to 2 hours, with a complete recharge in 3 to 4 1/2 hours. Replaceable battery and worklight. Comes with recharging stand, fine & heavy tips ..... **\$47<sup>95</sup>**



## NC-101 Encoder

Micro-mini. CTCSS encoder, field tunable to any of the CTCSS tone frequencies between 67Hz to 254Hz. 5 to 15VDC. 0.60" w x 0.80" l x 0.15" h **NorFax™ #5040** ..... **\$19<sup>95</sup>**

## NC-104 Programmable Encoder

Sub-mini., field programmable CTCSS encoder unit for limited space. Provides standard 37 EIA CTCSS tones + 69.37, 97.4 & 205.5Hz. 7 to 24VDC. 0.625" w x 0.80" l x 0.170" d **NorFax™ #5150** ..... **\$24<sup>95</sup>**

## NC-106 Programmable CTCSS Encoder/Decoder

A sub-miniature crystal-controlled digital unit. Field programmable with dip switches providing any one of the standard 37 CTCSS tones + 97.4Hz. 6-24VDC. 0.85" w x 1.35" l x 0.28" h **NorFax™ #5230** ..... **\$54<sup>95</sup>**

## NC-401 Touch-Tone® Decoder

Unique micro-mini. unit combining two distinct multi-addressable decoders for control of remote or local applications. Decodes all 16 DTMF characters with an address length of 1-14 characters and features EPROM memory for storage of both primary and secondary codes, input/output functions, deadbeat disable and user outputs, plus default reset. Programming easily performed by means of a conventional DTMF encoder. 6-24V DC. 0.80" w x 1.37" l x 0.23" h. **NorFax™ #5545** ..... **\$59<sup>95</sup>**

**More Info: Call the NorFax™ automated 24-hr. fax retrieval system - 530-477-8403**



## CD-2 Communications Decoder Unit

When mobile, the CSI CD-2 makes it easy for you to use open repeaters & autopatches because it decodes and displays any CTCSS, DCS or DTMF codes other amateurs are using on the channel. When at the base, the RS-232 port exports all decoded CTCSS/DCS or DTMF data to your PC allowing use of CD-2 software. Maintains a history of CTCSS/DCS/DTMF data from the CD-2 occurring on the channel being monitored, creates usage graphs, etc. PC/DOS based. 12 - 15 VDC. 4.9" w x 4.5" d x 1.9" h, 1 lb ..... **\$249<sup>95</sup>**  
**CD-2P** PC Program for CD-2 ..... **\$99<sup>95</sup>**

**For additional information you may contact CSI at:**

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e-mail: sales@connectsystems.com  
Internet: www.connectsystems.com

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## COMMUNICATIONS SPECIALISTS, INC. Tone Encoders & Decoders

### SS-64 Programmable

CTCSS Encoder Super small for easy install. in most HTs. Standard with 64 EIA tones between 33 & 254.1Hz. Individual tones dip-switch selectable 0.66" x 1.08" x 0.21", requires 6-28 VDC ..... **\$28<sup>95</sup>**

### TS-64DS Field programmable

CTCSS Encoder-Decoder DIP switch programmable for 64 EIA tones 33-254.1Hz. 1 1/4" x 2", 0.3", 6-28 VDC ... **\$57<sup>95</sup>**

**DTD-1** DTMF Decoder Small, high quality, low cost. Decodes any one of 5,040 4-digit codes to provide a latched or momentary open collector output for single function operations. 1 1/4" x 2" x 0.4", requires 7-16 VDC ..... **\$49<sup>95</sup>**

### TE-32 Multi-tone Encoder

Provides direct access from a front dial rotary switch to all EIA CTCSS tones from 67.0 to 203.5Hz, allowing users to access various repeaters Great for mobile or test bench. 5 1/2" x 3.3" x 1.7", 6-30 VDC... **\$49<sup>95</sup>**

### TE-64 Multi-purpose

Encoder Provides 64 tone frequencies. Includes 32 sub-audible, 19 burst-tone, 8 Touch-Tone® & 5 test freq. Separate outputs for high & low freq. ranges. 5 1/2" x 3.3" x 1.7", 6-30 VDC ..... **\$79<sup>95</sup>**

### ID-8 Multi-Featured

Automatic Morse ID'er Programmable via 12-button pad. Eight changeable messages, 200 characters total. CW speed: 1-99 wpm; ID interval timing: 1-99 min.; ID hold-off timing: 0-99 seconds; CW tone: 100-3000Hz. Board: 1.85" x 1.12" x .035" ... **\$69<sup>95</sup>**

Many of the wiring diagrams for installing ConnSpec units in older Ham equipment are available as PDF documents at [www.com-spec.com](http://www.com-spec.com). Also posted is a six-page list of documents that can be obtained from their Fax-on Demand system.

## PIPO Communications High Quality DTMF Encoders



**PK-1**

**\$71<sup>95</sup>**



**PK-2**

**\$76<sup>95</sup>**

- 12-digit or 16-digit pads
- Steel Keys
- Sealed Gold Dome Contacts
- Self-contained
- NO RFI
- Simple 3-wire connection
- 2.65" h x 2" w x .045" (PK-1)
- Voltage 8.5 to 16V DC
- Temperature -22 to +160 F
- Adjustable level and timing
- Front panel adjustable
- Includes template, hardware and schematic
- 2.65" h x 2.5" w x .045" (PK-2)

**K-Series option:** features a built-in keying circuit & relay to automatically key a transmitter or other system. When any key is depressed, a relay closes for 0-3 seconds, time is adjustable with a trimpot.

**PK-1K \$78<sup>95</sup> - PK-2K \$83<sup>95</sup>**

**M-Series option:** a special encoder package for mounting any PK-1/1K, PK-2/2K PIPO encoder to surfaces that are inaccessible from the rear such as walls, mobile dashboards, panels, etc. Consists of a frame which secures to the mounting surface with the encoder press-fitting into the frame.

**PK-1M \$71<sup>95</sup> - PK-2M \$76<sup>95</sup>**

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**6M SSB  
Adventure  
Radio**  
**\$249<sup>95</sup>**



Explore exotic 50MHz band openings, Tropo, Sporadic E, F2, TE, Aurora, Scatter, and more.

**9406X** Full CW/SSB coverage: VFO tunes 50.0 to 50.3MHz, covers CW, propagation beacons, SSB. Smooth reduction-drive analog VFO and fine-tune control makes tuning signals easy. Only 2 1/2" h x 6 1/2" w x 6" d. Opt. CW module & power supply.

**Potent Signal:** 10W PEP output. Syllabic speech processing adds up to 6dB more punch to cut through noise, fading & QRM. Incl. hand microphone is designed to complement the speech processing. Built-in 60MHz lowpass filter prevents TVI.

**Hot/Selective Receiver:** Crystal-mixed single-conversion superheat with low-noise preamp digs deep into the noise floor to capture weak signals. A sharp SSB ladder filter reduces QRM/passband noise.

**6 meter Accessories:**

**416** CW module for 9406X, provides semi-QSK break-in and sidetone ..... **\$39<sup>95</sup>**

**4110** 110V AC wall adapter transformer and voltage regulator for 9406X (13.6V DC out) ..... **\$49<sup>95</sup>**

**4114** Portable battery pack. Uses Ni-Cad, Alkaline, regular D cells or 110VAC. Includes charger for Ni-Cads. Fastens to 9406X ..... **\$69<sup>95</sup>**

**1762** Lightweight 3-element 6-meter yagi. Gain: 6 dBd. F/B: 18 dB. Boom length: 6 ft. Weight: 2 lbs. Rated 300W PEP SSB ..... **\$69<sup>95</sup>**

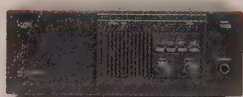
**1776** Lightweight, portable 1/2-wave folded dipole antenna, assembled with feedline ..... **\$34<sup>95</sup>**

**1728B** Mobile magnet mount antenna. Full 1/4-wave on 6M, 5/8-wave on 2M ..... **\$24<sup>95</sup>**

**1756** 6-meter omni-directional low-angle DX vertical base station antenna ..... **\$69<sup>95</sup>**

**1736** 6-meter J-Pole Travel antenna ..... **\$24<sup>95</sup>**

**MIRAGE A-1015G** 6-meter 150 Watt Amplifier. Ideal for 9406X and other 6 meter (1-15 watt) FM, SSB, or CW rigs. 10W input produces 150 W output. Requires 13.8V DC @ 18-22 amps ..... **\$349<sup>95</sup>**



**ICOM  
FM  
Repeaters**

**Various Features:** Commercial Quality • 24 Hour Continuous Duty • AC/DC Operation • DTMF Remote Control • Programmable CW Call Sign I.D. • Time-out Timer • 5.9" h x 14.5" d x 14.5" d, 37.5 lb

**All Models are Special Order**

**RP-1520** 144-148MHz, 25W output ..... **\$2499<sup>95</sup>**

**RP-4020/50W** 430-450MHz, 50W output **\$2649<sup>95</sup>**

**You may call us for more detailed information on these Icom & Yaesu Repeaters.**

**YAESU**



**vertex  
FM  
Repeaters**

- 2-25W 100% duty cycle
- 8 Channels - PLL synth.
- Optional programming kit
- CTCSS encode/decode
- Programmable features: Frequency, CTCSS, Hi/Low power, Hang timer, Time-out timer

- Wall Mount or optional 19" rack mounting kit
- DB-25 connector for accessory and 8-pin modular jack for phone line
- Modular card style unit construction • 25 lbs.
- 14-3/4" x 10-3/4" x 4-3/8"

**VXR-5000UCDC** 440MHz 12VDC @ 7A **\$1199<sup>95</sup>**

**VXR-5000U/TC** 440MHz w/AC supply.. **\$1399<sup>95</sup>**

**VXR-5000VADC** 2m, 12VDC @ 7A ..... **\$1199<sup>95</sup>**

**VXR-5000V/TA** 2m with power supply. **\$1399<sup>95</sup>**



**DRAKE  
TR-270  
2 meter FM  
Base/Mobile  
Transceiver**

**Major features:** Dual receiver oper. with 2 VFOs per receiver & independent volume & squelch controls; High dynamic range front end; Frequency turning via tuning wheel, up/down buttons, or direct keypad entry; Multiple scan func; Pre-programmed operating parameters w/customizable settings; RS232C interface; 3 selectable power output levels; Switchable IF filters.

Total integration of FM voice, packet, satellite, and weather fax - ACARS data reception possible with the optional TNC270 and DEMOD270 (200 additional mem. in weather satellite & satellite modes).

DTMF encoding and dialer; CTCSS encode/decode; Front-mounted speaker; Built-in switching power supply; Dynamic mic; External DC input for mobile or emergency oper. LED & backlit LCD display w/indicators of all oper. & setup parameters **\$549<sup>95</sup>**

Transmit range .....	142 to 150 MHz
Extended receiver range....	136 to 174 MHz & 420 to 470 MHz
Maximum power output	25W
Sensitivity .....	0.18µV/12dB SINAD
Audio output at 8Ω.....	2W
Power Requirements.....	15/230 VAC ±10% 13.8V DC @ 8A
Dimensions .....	4 1/4" h x 11" w x 13 1/2" d

**TNC-270** Terminal node controller Plug-in controller card for TR-270 transceiver. 1200/9600 bps. Easy oper., comes with PC PakRatt™ software for Windows® and PP Lite™ software for DOS... **\$249<sup>95</sup>**

**DEMOM-270** TNC-270 accessory Provides demodulation of weather satellite transmissions, including NOAA APT, GOES & HF WEFAX (additional equipment may be required), and other facsimile signals; ACARS, Morse code and RTTY also possible.. **\$99<sup>95</sup>**



**KACHINA  
COMMUNICATIONS, INC.**  
[www.kachina-az.com](http://www.kachina-az.com)

**See Price Guide**

**COMPUTER CONTROLLED HF TRANSCEIVER**

Covers 160 thru 10 meter amateur bands on transmit and from 0.1 to 30 MHz with its general coverage receiver. Power output is 100 watts SSB/CW and 25 watts AM. Built-in 5-80 WPM CW keyer. Totally PC controlled under Windows 3.1 or Windows 95 and loaded with computerized features: 16/24 bit IF DSP processing, 1 Hz DDS tuning; built-in test and frequency calibration, band sweep display; point and click tuning; on screen Smith chart; logging software.

*Call for more information & descriptive brochure*

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**SECURE** web site

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**VECTRONICS® Electronic Kits**

*... the finest amateur radio products made*

40M Receiver • Crystal Radio • 40M CW Transmitter • AM Radio Transmitter • TV Transmitter • Aircraft Receiver • 2M preamp • 220MHz Preamp • CW Keyer • Battery Conditioner • FM Broadcast SCA Decoder • CW Audio Filter • CW Filter/Amplifier kit • SSB Audio Filter • Tunable SSB/CW Audio Filter

**Selected kits in stock!... See the Price Guide under Vectronics**

Each kit features a professional quality epoxy glass PC board with solder mask and screen printed component legend, simple step-by-step instruction manual and the highest quality components. Kit assembly is easy, and they work the first time.



**AH-50 SF 6 Meter Transceiver**

- Complete Band Coverage (50 to 54 MHz)
- Selectable Offset
- Backlit LCD Info w/Function Indicators
- Frequency Scanning scans entire 6M band
- Full 5 Watts Output Power Standard
- Selectable 1 Watt Low Power Mode
- CTCSS Tone Frequencies for Privacy
- 5 Programmable Memories - Quick Access
- Full Normal & Reverse Repeater Functions
- Batt. Power Saver w/Low Batt. Indication
- Opt. MA-27 adapter allows Mobile Oper.
- Convenient Small Size: 6" h x 2 1/2" w x 1 1/4" d
- Accessories Include: Flexible Antenna, Ni-Cad Battery Pack, Power Adapter, Battery Charger, Belt Clip and Wrist Strap

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# ALINCO 2000

**Alinco is ready for the new year with exciting new products and proven performers. High quality and affordable prices make us Amateur Radio's Value Leader!<sup>SM</sup>**

**NEW!**

## DJ-V5TH 2m/440 HT\*

**NEW!** Extended Rx from 76 ~ 999 MHz<sup>1</sup>, alphanumeric display, 200 Memories, CTCSS encode+decode, 6 watts output, compact size, 4 scan modes, 5 scan banks, cross-band operation, auto-dialer, 13.8 VDC direct input and more!

## DJ-195T 2m HT

**NEW!** Alphanumeric display, 40 memories, CTCSS encode+decode, DCS, auto-dialer, burglar alarm, 13.8 VDC direct input. Comes with 5W battery!

## DJ-180TH (144 MHz)\*, DJ-280TH (222 MHz)\*, DJ-480T (440 MHz)

Solid performers at a low Alinco price. 10 memories expandable to 50 or 200, illuminated display.

## DJ-C5T 2m/440 "Credit Card" HT

Amazing "Credit Card" size, internal speaker, 50 memories, CTCSS encode+decode, AM airband RX, 300 mw output, soft case, lithium-ion battery, desk charger included!

## DJ-S11T (144 MHz), DJ-S41T (440 MHz) HT

The "affordable radio" sensations for every ham! "Pager size", 21 memories, easy to operate and program, great TX and RX audio, self-storing pivot antenna, uses AA batteries, 340 mw output, fits in pocket or purse.

## DJ-G5TH 2m + 440 HT\*

A durable favorite with solid reviews. Up to 5 watts output, Channel Scope™ display, 100 memories/band, CTCSS encode+decode, AM airband RX, programmable second PTT, full duplex and crossband repeater capabilities, 13.8 VDC direct input, illuminated keys and display, RF attenuator and more!

## DJ-191TH 2m HT\*

Versatile performer with 40 memories, huge illuminated display, easy to program, 13.8 VDC direct input, auto-dialer, direct frequency entry, CTCSS encode, decode optional.

The DJ-195T has not yet been type accepted by the FCC. It may not be sold or leased until the approval of the FCC has been obtained.

\*Optional 2 watt batteries available.

## DR-M03SX (10m/10 watts), DR-M06TH(6m/20 watts) FM Mobile/Base

Enjoy local and DX FM communications. Great for simplex or repeater operations, includes CTCSS encode (decode optional), 100 memories and many functions in a compact design.

## DR-140T, DR-140TQ (CTCSS decode) DR-140TPKT (for Packet) 2m FM Mobile/Base

Affordable fun! Alphanumeric display, CTCSS, easy operation, cable cloning, 50 watts output, 51 memories, AM airband RX.

## DR-150T, DR-150TQ (CTCSS decode) 2m FM Mobile/Base

50 watts, 100 memories, airband + 440 ~ 450 MHz RX, Channel Scope™ display, 2 VFOs, auto-dialer, 9600 packet port, CTCSS.

## DR-605T, DR-605TQ (CTCSS decode) 2m/440 Mobile/Base

Value Leader! 50 watts VHF/35 watts UHF, 51 memories/band, 430 ~ 4449.995 MHz range allows for satellite work, internal duplexer, 9600 packet port.

## DR-610T, DR-610TQ (CTCSS decode) 2m/440 Mobile/Base

Channel Scope™ Display, 50 watts VHF/ 35 watts UHF, 120 memories, detachable face, 2 VFOs, AM airband RX, V/U, V/V, U/U, U/V operation, RF attenuator, CTCSS, more!

## DX-70T (100w HF, 10w 6m), DX-70TH (100w) HF + 6m Mobile/Base/Portable

160 ~ 6m Amateur band TX in all modes, general coverage RX from 150 KHz ~ 30 MHz and 50 ~ 54 MHz. 2 VFOs, 100 memories, removable face, speech compressor, SSB, CW and AM narrow filters, full, semi or automatic break-in, multi-function control, and MUCH more! Ask about optional EDX-1 or EDX-2 antenna tuners.

## DX-77T HF Base/Portable

160 ~ 10m Amateur band TX in all modes. 500 KHz ~ 30 MHz general coverage RX, 2 VFOs, internal keyer (6 ~ 50 wpm), CW crystal filter, 13.8 VDC input, speech compressor, front-mounted speaker, 100 memories, RIT, easy split operation, compatible with EDX-1 or EDX-2 antenna tuners. **Clean, crisp RF modulation!**

**Simple • Clean • Dependable**

**ALINCO**  
AMATEUR RADIO'S VALUE LEADER<sup>SM</sup>

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regulatory blocked. Specifications subject to change without notice or obligation. Performance specifications apply only to Amateur bands. Permit required for MARS/CAP use. Products intended for use only by properly licensed Amateur Radio operators.



# Connect with ICOM &



Enter ICOM's Connect 2000 monthly giveaway and you could win a new IC-2800H or IC-706MKIIG. It's easy! Once a month, ICOM will post a question on its Website, at authorized ICOM dealers, in the ICOM Funmobile, and at ICOM attended ham events. Your job is to find the correct answer and mail it in. Once a month, ICOM will select at random one correctly answered entry and reward the sender with that month's new radio. Visit AES or the ICOM America Website for complete rules. No purchase necessary. Void where prohibited. Contest ends 3/31/00.



IC-707

IC-746

## ICOM Connect 2000

IC-756 (top), IC-775DSP (center), IC-781 (bottom)



### LEGACY IC-706 SERIES



**The most versatile series of compact, multi-band rigs ever made.**

#### NEW IC-706MKIIG

**THE BEST LITTLE RIG GETS EVEN BETTER**

More power, 440 MHz, and still more features! The new IC-706MKIIG adds 50W on 2M, 20W on 440 MHz, AF-DSP, auto repeater, CTCSS encode/decode, and backlit keys. Tried, tested and proven, the '706 series is your best choice for a complete ham rig.



**NOW WITH DSP AS STANDARD EQUIPMENT**

#### IC-706MKII

**PROVEN PERFORMANCE**

"Upgrade" of the wildly popular IC-706, the IC-706MKII continues to take the world by storm. 100 Watts on HF & 6M, 20 Watts on 2M. Incredible features. The '706 series have earned a reputation as rugged, hard working rigs that perform as well on a serious DX'pedition as they do in a car or shack.

### Connect

Look for opportunities to WIN with ICOM in upcoming amateur contests and events. Look for details to be announced soon.

### Connect

The ICOM America Website continues to grow. Utilize this important tool to get the latest info on new rigs, specials, and more.

### Connect

Whether you gain full control of your rig or just adjust settings, use ICOM software to add PC convenience to your operations.

### Connect

Your AES dealer carries all the latest ICOM amateur equipment and accessories. Call or visit today and start having MORE ham fun!

**IC-707** Extra Class Performance at a Novice Price • 100W (AM 25W) • All Mode • Simple to Use • Big, Well Spaced Keys and Dials • Large Backlit LCD Display • 500 kHz-30.0 MHz General Coverage Receiver • Full Duty Cycle • Large, Front Facing Speaker • PC Programmable\*

**IC-746** HF/6M/2M • 100W • All Mode • Full Duty Cycle • Quad Conversion Receiver • IF-DSP • Front Panel Adjustable NR • Audio Peak Filter • Auto Notch Filter • 3 Optional Filter Positions • Twin Passband Tuning • 4.9" LCD/Dot Matrix Display Shows All Operating Conditions, Metering and Spectrum Scope • CW Memory Keyer • VOX • Automatic Antenna Tuner • PC Controllable\*

**IC-PW1** Give your desktop station 1kW of power. Remote control head, 100% duty cycle, compact size.



**IC-756** HF/6M • 100W • All Mode • Full Duty Cycle • Quad Conversion Rx • Dual Watch • IF-DSP • Front Panel Adjustable NR • Audio Peak Filter • Auto Notch Filter • 2 Optional Filter Positions • Twin Passband Tuning • 4.9" LCD/Dot Matrix Display Shows All Operating Conditions and Spectrum Scope • CW Memory Keyer • VOX • Auto Antenna Tuner • PC Controllable\*

**IC-775DSP** HF • 200W • All Mode • IF-DSP with Noise Reduction, Auto Notch, Audio Peak Filter, Manual Notch and Twin Passband Tuning • Adjustable Noise Blanker • Dual Watch • Adjustable AGC • CW Keyer • Auto Antenna Tuner • VOX • CTCSS Encoder • PC Controllable\*

**IC-781** The Ham's Ultimate 150W HF Rig • Features all the Bells and Whistles • Built-in Power Supply • All Mode • CRT Display with Band Scope • PC Controllable\*





**ICOM's SATELLITE** rig, the performance proven IC-821H, has earned high praise from both the amateur press and the hams who are out there pushing the hobby's envelope.

**IC-821H** 2M/440MHz • All Mode • REAL Satellite & Digital Performance with Continuous Adjustable Tx Power • Sub Band Tx, Independent Rx • 9600 bps Packet Data Port • Noise Blanker & IF Shift on Main/Sub • Satellite Tracking with Doppler Correction • Compact Size

**IC-2100H** Rugged 2M • 55 Watts • Easy to Use • Full Function Mic • IMD Fighter • MIL SPEC 810<sup>11</sup> • Green/Amber LCD • Large Keys, Knobs

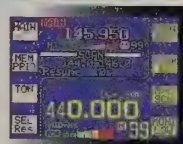


**IC-207H** Super Compact, Detachable Control Panel\* • 2M/440MHz • 2M(45W)/440 MHz(35W) • Work One Band at a Time • Up to 9600 bps Packet\* • Air Band RX<sup>1</sup> • MIL STD 810<sup>11</sup>



**NEW IC-2800H** Audio Excellence and Video Excitement • 2M/440MHz • 3" (d) TFT Color LCD Screen • NTSC External Video Input (PAL in Europe) • WFM & AM (Rx Only), FM • 50W/2M, 35W/70CM • 9600 bps Packet Data Port • V/U, U/V, Dual Band, Cross Band Repeat • Independent Band Controls • Air Band Rx<sup>1</sup> • Duplexer • Attenuator

Use the hi-visibility screen to add fast-growing visual dimensions to your hobby. Experiment!



**ICOM HTs** offer the best and latest features. Most are PC programmable\*, offer CTCSS encode/decode, meet MIL SPEC ...and best of all, are easy to use.

**NEW IC-T81A** World's First QUAD Band HT • Easy to Use • 6M/2M/440MHz/1.2GHz • Wide Rx<sup>1</sup> • 5W@13.5VDC\*, 1W/1.2GHz • Ni-Mh Battery • Auto Repeater • Water Resistant

**IC-T8A** Easy to Use, Compact 6M/2M/440MHz Tri Bander • Wide Rx<sup>1</sup> • 5W@13.5VDC\* • Ni-Mh Battery • Auto Repeater • Water Resistant

**IC-W32A** 2M/440MHz • 5W@9.6VDC • Easy to Use • 200 Memories • Alphanumeric Display & Paging • V/V, V/U, U/V, U/U • Backlit Keypad • Wide Rx<sup>1</sup>

**NEW IC-T7H** 2M/70CM • Easy to Use • Up to 6 Watts\* • Air Band Rx<sup>1</sup> • Pocket Beep • Auto Repeater • Work One Band at a Time

**IC-Q7A** 2M/70cm Mini Size • Big Audio • 30 to 1300 MHz Rx<sup>1</sup> (Cell Blocked) • Advanced Scanning • Includes 2 "AA" Ni-Cds & Charger

**IC-T22A** 2M • Easy to Use • Alpha-numeric Display • Wide Rx, Air Band<sup>1</sup> • 5W@13.5VDC\* • 3W@9.6VDC Standard

**NEW IC-T2H** 2M • Super Rugged • 6W@9.6VDC • 500 mW Audio • 8 Front Panel/PC Programmable\* Keys • "AA" Ni-Cds & Wall Charger included

Most ICOM rigs are PC programmable with select ICOM options



**ALL MIL SPEC HTs**

IC-Q7A is available with an optional shorter antenna

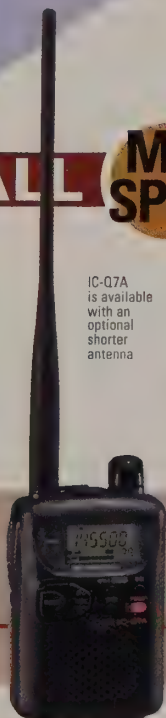
Too new! IC-T81A's MIL SPEC test is pending



IC-T2H



IC-T22A



IC-Q7A



IC-T7H



IC-W32A



IC-T8A



IC-T81A

\*Optional equipment required. <sup>1</sup>Reception guaranteed on US ham bands only. <sup>11</sup>MIL STD 810

C/D/E for shock/vibration. ©1999 ICOM America, Inc. 2380 116th Ave NE, Bellevue, WA 98004 • 425-454-8155. The ICOM logo is a registered trademark of ICOM, Inc. All specifications are subject to change without notice or obligation. Questions? Contact AES or contact ICOM America Tech Support on CompuServe's® HamNet forum at 75540.525 or send e-mail to 75540.525@compuserve.com. CompuServe is a registered trademark of CompuServe, Inc. VHF/UHF/AES399Y





## NEW IC-R75 HF RECEIVER

**Cutting edge technology  
for today's serious DX'er,  
yet easy & affordable  
for a casual listener.**

*A large display and  
well spaced keys,  
knobs & dials helps  
make the compact  
'R75 easy to work.*

**Hear MORE of what's out there.** Pick up more amateur, marine and shortwave broadcasts. The new 'R75' covers from **0.03 – 60.0 MHz** – wider than most other HF receivers.

**Pull out the weak signals.** The IC-R75 sports a remarkable arsenal of signal detection weapons, ready for your command:

A **triple conversion** receive system rejects image and spurious signals. An **automatic notch filter** reduces interference by minimizing "beat" and "howl" signals. Use **Twin Passband Tuning (PBT)** to zero in on signals by shaping the IF passband. ICOM's all new **Synchronous AM detection (S-AM)** technology reduces signal

fading in AM broadcasts. Optional **Digital Signal Processing (DSP)** noise reduction in the AF stage converts analog SSB, AM and FM signals to crisp, clear audio output (you'll hear the difference on the 'R75's **large front mounted speaker**). Further tailor the 'R75 to meet your listening needs by installing **up to two optional filters**.

There's much more. Plan to test drive a surprisingly affordable new IC-R75 at **Amateur Electronic Supply** soon.

# ICOM brings you the BEST in wide band receivers

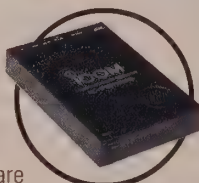


Computer  
not included.

### IC-PCR1000 The original "World in a Little Black Box".

100% PC hardware external. Impressive 0.01 – 1300 MHz\* wide band reception, all modes. Listen to your favorite broadcasts while working in foreground applications. Designed for Windows® 3.1 or 95.

"The PCR1000 has something to intrigue and satisfy everyone. This is a fun product." – *QST*, 7/98



**IC-R8500** The expert's choice. 0.5 – 2000 MHz\*; commercial grade; all mode; IF shift; noise blanker; audio peak filter (APF); 1000 memory channels; built-in CI-V command control and RS-232C port for PC remote control with ICOM software for Windows®.

"If you want a receiver that is both a superior world band radio and a solid scanner, the new Icom IC-R8500 is the best choice."

– *Passport to World Band Radio*, 1998



**IC-R10 (left)** Advanced performance and features. 0.5 – 1300 MHz\*; all mode; alphanumeric backlit display; attenuator; 7 different scan modes; beginner mode; 1000 memory channels; band scope; includes AA Ni-Cds and charger.

**IC-R2 (right)** Excellent audio, tiny package. 0.5 – 1300 MHz\*; AM, FM, WFM; easy band switching; CTCSS decode; 400 memory channels; priority watch; MIL SPEC 810 C/D/E; weather resistant; includes 2 AA Ni-Cds and charger.



**IC-PCR100** A little different look, a little fewer features, a little lower price. Enjoy 0.01 – 1300 MHz\* wide band reception on AM, FM and WFM. Outstanding performance. Designed for Windows® 95 or 98. Download the full version software today: [www.icomamerica.com](http://www.icomamerica.com)



Computer  
not included.



# ICOM®

[www.icomamerica.com](http://www.icomamerica.com)

\*Cellular frequencies blocked; unblocked versions available only to FCC approved users.

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## GOLDLINE

Exciting New  
Full Range  
Dual Element  
Low Distortion  
Broadcast  
Microphone

for SSB-AM-FM  
The "GOLDLINE" Full-range  
Dual Element Studio Microphone...

another innovative product from Bob Heil, K9EID. Bob, who has devoted most of his life advocating better audio on the ham bands created this microphone specifically for full-range, smooth articulate SSB audio with a wide audio response – great for AM and FM transmissions.

The wide (60Hz to 16kHz) frequency range coupled with a 6dB midrange peak @ 2kHz, gives the GOLDLINE excellent voice articulation, which is so important for clear, understandable SSB. At the same time, it produces a well-balanced low end which adds a robust quality that is a treat to the ears.

It's sweet and smooth, but when the pileup or conditions get tough, you can conveniently switch in a Heil Key Element with an engineered response that guarantees maximum speech power – see descriptions below.

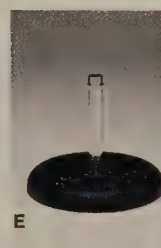
The GOLDLINE comes equipped with the new full-range element, plus your choice of either the HC-4 or HC-5 Key Element. The selector switch is on top, next to the PTT button which utilizes a glass-enclosed magnetic reed switch for smooth, noise free operation.

**GM-4** GOLDLINE with full-range and HC-4 combination ..... **\$139<sup>95</sup>**

**GM-5** GOLDLINE with full range and HC-5 combination ..... **\$139<sup>95</sup>**



Cable is optional



**PRO 5 Boomset (A)** If you are concerned about covering both ears, use the PRO-5. Its was created with all of the quality and performance as the PRO-SET with out covering the right ear. Available with either the HC-4 or HC-5 element (below). Use AD-1 adapter (above), specify HC-4 or HC-5 ... **\$120<sup>95</sup>**

**HM-10 Microphone (B)** A hand-held studio-style microphone with desk stand or boom mount options. Choice of HEIL cartridges. Operate PTT or VOX, it's designed to work with virtually any late model transceiver. When ordering specify HC-4 or HC-5 cartridge (below) ..... **\$64<sup>99</sup>**

**HM-10 DUAL Microphone (C)** The ultimate microphone. Versatile in that it has both HC-4 DX element and HC-5 Full Range microphone cartridges built-in – and switch selectable for varying conditions ..... **\$114<sup>99</sup>**

**TB-1 Table Base (E)** For HM-10 or GM series microphones. 6 inches high, heavy (2 lb., 10 oz) cast metal base with non-skid cork feet. .... **\$24<sup>99</sup>**



## HEIL MICROPHONE CARTRIDGES

Most microphones today were designed for PA – not for SSB, with the frequency response needed for busting pile-ups, or providing maximum voice clarity. If you aren't satisfied with the "sound of your station," you can solve this problem by replacing the cartridge in your microphone with a Heil Key Element for a dramatic improvement. It's tiny in size, and easily replaces existing cartridges in most microphones.

### HC-4 – The DX Dream Machine

The replacement microphone cartridge for contest, DX and weak-signal VHF/UHF work. Outstanding results on aurora, backscatter, etc. Engineered with response where it counts – a high-pitched, pile-up busting 500–3800Hz with a 10dB peak @ 2000Hz, and a sharp 12dB per octave roll off @ 500Hz. Produces superior clarity and more punch for difficult contacts. Penetrating sound, not for everyday Rag Chewing. Z: 2000Ω, works well into low to medium-Z inputs. Cardioid. Size: 0.530" d x 0.850" w x 0.310" h ... **\$29<sup>99</sup>**

**Tip:** Install both the HC-4 & HC-5 and switch 'em like on the HM-10 DUAL– the 5 for Show, the 4 for GO!

### HC-5 – The Key Element

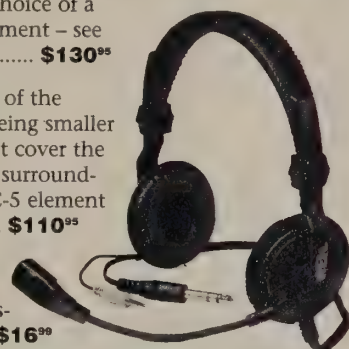
The replacement microphone cartridge to eliminate the mushy, bassy, paging-type audio produced by most factory supplied mics. Makes any rig sound better and more intelligible by providing full articulation and maximum clarity. Response: 350–4000Hz, with a sharp roll-off under 300Hz and above 3100Hz, with a peak at 2100Hz. Very clear, easy-to-understand SSB audio for everyday Rag Chewing. Z: 2000Ω, works well into low to medium-Z inputs. Cardioid. Size: 0.530" d x 0.850" w x 0.310" h ... **\$29<sup>99</sup>**

## PRO-SET & PRO-MICRO Boomset Headphones

**PRO-SET** – a rugged, lightweight boomset designed for long wearing time during contests, etc. The headband is fully adjustable and is fully padded for comfort. The vinyl earpads are also heavily padded, seal out noise, and are removable for washing. The flexible microphone boom is adjustable and folds up for storage. Includes your choice of a HEIL HC-4 or HC-5 microphone element – see descriptions below ..... **\$130<sup>95</sup>**

**PRO-MICRO** – a miniature version of the PRO-SET. It's main feature besides being smaller and lighter weight is that it does not cover the entire ear which allows hearing the surroundings. Includes choice of HC-4 or HC-5 element – see descriptions below ..... **\$110<sup>95</sup>**

**AD-1 Adapter cable (D)** for using PRO-SET or PRO-MICRO with ICOM, KENWOOD, or YAESU transceivers..... each **\$16<sup>99</sup>**



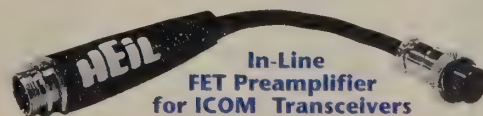
[www.heilsound.com](http://www.heilsound.com)

**CC-1 CABLES FOR GOLDLINE or HM-10/Dual** (not pictured) Designed to work with any transmitter. Specify your radio and the HM-10 or GOLDLINE will be shipped with the correct color coded cable. Specify 8-pin or modular and manufacturer (See price guide for model numbers) ..... **\$29<sup>99</sup>**

**MA-1 Boom and Clamp Assembly (F)** For HM-10 or GM series microphones. The boom is adjustable from 6 to 24 inches and attaches to desk or shelf, or hangs from ceiling. Swivels a full 360° and places HM-10, HM-10 DUAL, or GM microphone exactly where you want it. You can use the FS-1 footswitch for convenient, hands-free PTT operation..... **\$64<sup>99</sup>**

**FS-1 Foot switch (G)** Provides convenient foot-control of PTT function of any transmitter. Non-skid rubber pad on both top and bottom, supplied with 7 ft. cable and 1/4" phone plug. .... **\$29<sup>99</sup>**

**HS-1 Hand switch (H)** Provides convenient finger-tip-control of PTT function, supplied with 7 ft. cable and 1/4" phone plug. .... **\$24<sup>99</sup>**



**Model HMP** Designed by Bob Heil, K9EID out of the need to use the Key Elements on his personal IC-746.

It complements the HC-4 or HC-5 by achieving the proper audio level and response for ICOM transceivers with 8dB overall gain and 4dB equalization @ 1500Hz.

The Key Element and HMP combination blows away the stock microphones by providing all of the benefits of the HC-4/5 as described to the left. The 6" cable with 8-pin plug connects to the into the ICOM mic input. The other end accepts the Heil CC-1/AD-1 8-pin adapters. Operational voltage is derived from the microphone input of the ICOM while passing through the push-to-talk line. **HMP-M** has a modular plug to mate to ICOM radios with modular connector...HMP or HMP-M **\$54<sup>99</sup>**

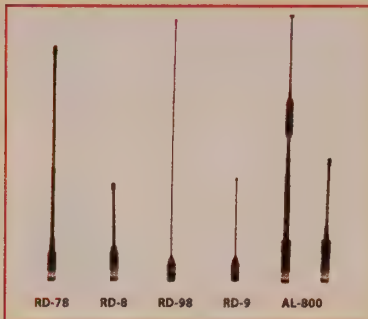
**HEIL SOUND... defining the standards for amateur radio communications**



# PRYME

## Radio Products

### HT Antennas



#### RD-8 - 2M / 70 CM Rubber Duck Antenna

Most manufacturer's stock rubber duck antennas are nothing more than a steel spring! Our 6.5" flexible wonder, the RD-8, will definitely improve your signal on both Two Meters and 440 MHz over any manufacturer's stock duck. Scanning enthusiasts and amateur radio operators alike agree that the RD-8 offers fantastic performance at an affordable price. It has a gold plated BNC connector. Tuned for amateur band operation (144-148 / 430-450 MHz).

#### RD-9 / RD-9SMA - 2M / 70 CM Thin Duck

The RD-9 is an extremely thin, extremely flexible 7" tall rubber duck that will surely improve your HT's performance on both Two Meters and 440 MHz. The antenna has either a BNC or an SMA connector which is protected by a rubber moisture shield, and is molded to sit firmly on your radio's connector, preventing excessive wear and tear. Tuned for amateur band operation (144-148 / 430-450 MHz).

#### RD-78 - 2M / 70 CM Extended Duck Antenna

Our RD-78 makes significant improvement over stock, steel spring type antennas. Hit local repeaters solidly, access distant machines, talk simplex with just an HT! The RD-78 is flexible, but stiff enough that it doesn't droop. Provides a solid signal with 2.15 dBi gain on VHF and 3.2 dBi gain on UHF. Gold Plated BNC connector and 900 MHz resonator. Tuned for amateur band operation (144-148 / 430-450 MHz).

#### RD-98 / RD-98SMA - 2M / 70 CM Extended Thin Duck

A wonder to behold, the RD-98 is a 17" dualband HT antenna that is only 1/16th of an inch in diameter. This combination of strength and gain has made the RD-98 the favorite antenna of emergency service volunteers everywhere. Tuned for amateur band operation (144-148 / 420-450 MHz).

#### AL-800 - 2M / 70CM Telescoping Antenna

This highly popular antenna is Premier's top of the line. Great for hiking, riding, or whenever you end up on the fringes of your favorite repeater. Telescopes to 34" or collapses to 10". You even get two antennas for the price of one -- when you are back in town, unscrew the telescoping section and replace it with the 9" rat tail section (included). Has 3.2 dBi gain on VHF and 5.5 dBi gain on UHF. Tuned for amateur band operation (144-148 / 420-450 MHz).

## Audio Accessories

#### SPM-400 Series - Mini Boom Microphones

The SPM-400 series headsets include an in-the-ear speaker and a patented rubber-covered earloop design that adjusts to comfortably fit either the right or left ear of any user. The entire headset/speaker assembly is made of durable polyurethane and rubber. The unit features an in-line Push-To-Talk switch that can be clipped to the user's lapel or belt, or the unit can be keyed remotely using an optional remote cord.



**Models Available:** SPM-400 (for ADI, Alinco, Icom, Standard, Yaesu), SPM-401 (for Kenwood), SPM-402 (for Yaesu FT-50 / VX-1R / VX-5R)

#### SPM-200 / 200E Series - Surveillance Microphones

The SPM-200E is our most comfortable, most versatile lapel/surveillance microphone. It features a high quality electret condenser microphone in a rugged plastic housing. The mic easily clips to the user's lapel, and the conveniently located PTT makes it a snap to use. The SPM-200 features an in-the-ear speaker while the SPM-200E features an earphone with a patented rubber earhook, making it the most comfortable surveillance mic ever!



**Models Available:** SPM-200 or SPM-200E (for ADI, Alinco, Icom, Standard, Yaesu), SPM-201 or SPM-201E (for Kenwood), SPM-202 or SPM-202E (for Yaesu FT-50 / VX-1R / VX-5R)

#### SPM-700 Series - Clandestine "Palm" Microphone

The new SPM-700 series represents a big step forward for clandestine and low profile communications needs. The unit's microphone and PTT switch are located in a one piece molded plastic unit that can be easily attached to a finger with velcro and concealed in the palm of your hand! The cords for the microphone and the included earphone can be easily run inside clothing to keep that low profile look, but even small amounts of exposed cord blend in because of all of the wire used in the unit is flesh colored!



**Models Available:** SPM-700 (for ADI, Alinco, Icom, Standard, Yaesu), SPM-701 (for Kenwood), SPM-702 (for Yaesu FT-50 / VX-1R / VX-5R)

#### SPM-500 Series - Throat Microphones

The **PRYME Radio Products™** SPM-500 series throat microphone by PREMIER Communications is the answer to both clandestine communication needs, and a great solution for operating in high noise environments. Our SPM-500 rests comfortably against the user's throat, picking up audio directly from vocal cord vibrations. This provides outstanding background noise suppression, surprising clarity, and it means that the microphone can be easily concealed inside a shirt or jacket. The microphone has a built-in, in-the-ear speaker and an in-line Push-To-Talk that can be clipped to the lapel or belt. The PTT may also be operated remotely as a "finger tip" PTT by running the included remote cord down the user's sleeve.



**Models Available:** SPM-500 (for ADI, Alinco, Icom, Standard, Yaesu), SPM-501 (for Kenwood), SPM-502 (for Yaesu FT-50 / VX-1R / VX-5R)

#### SPM-600 Series - Remote Speaker Microphone

Our newest model, the SPM-600 series is a full-sized portable microphone with even more durable construction. The larger built in speaker and microphone housing, and the super high 500 milliwatt audio output rating make this our best remote speaker microphone ever. It has a high-quality electret condenser mic element and a large internal speaker for even more of the "big audio" that you've come to expect from the **PRYME Radio Products™** line of audio accessories.



**Models Available:** SPM-600 (for ADI, Alinco, Icom, Standard, Yaesu), SPM-601 (for Kenwood), SPM-602 (for Yaesu FT-50 / VX-1R / VX-5R)

Study for your ham license or upgrade on-line:  
Visit [www.hamtest.com!](http://www.hamtest.com!)



# Handheld and Mobile Transceivers

ADI's line of value-packed, innovative transceivers just keeps growing! Our new, expanded product line offers more choices than ever before, including a new Family Radio transceiver, new mobile radios that include Digitally Coded Squelch (DCS), a handheld radio for the "magic" Six Meter band, as well as a new handheld and a new mobile radio for the 222 MHz (1.35 Meter) band.



## AT-600HP Dualband 2M/70CM HT

**NOW! Pre-Programmed with over 100 of Gordon West, WB6NOA's favorite Ham and Public Service channels!**



Gordon West  
WB6NOA

- Operate on simplex or repeaters, **straight out of the box!**
- Receive police, fire, medical calls, and more, all without any programming!
- All NOAA weather channels are already pre-programmed
- Easy to change pre-programmed frequencies
- Clone to any other AT-600

Tx range: 144-148, 430-450 MHz • Rx range: 108-174 MHz (including AM airband), 400-470 MHz, plus 830-985 MHz (cellular blocked) • MARS capable (permits are required) • simultaneous VHF/UHF receive • single band, or full duplex operation • crossband repeat • separate volume and squelch controls for each band • six-character alphanumeric display • 200 memories store any offset or tone • CTCSS encode and decode included • 10 DTMF autodialer memories for autopatch use • DTMF paging included • Auto Power Off & battery save • 5 Watts out with supplied battery (HP version only) • PC programmable • on-the-air and wired cloning • Large backlit keypad and display • Battery voltage meter function • Small! 4.25" (H) x 2" (W) x 1.5" (D) excluding battery pack

## AT-201HP 2 Meter HT

### AT-401HP\* 440 MHz HT

**AT-201:** Tx range: 144-148 • Rx range: 130-179 MHz • **AT-401:** Tx range: 430-450 MHz • Rx range: 400-470 MHz

MARS (permits are required) • 5-watts output with supplied battery pack (HP version only) • 40 memory channels store any offset or tone • CTCSS encode and decode included • programmable band and memory scan modes • DTMF paging included • dual frequency watch • auto-repeater offset (AT-201 only) • user selectable frequency or channel display modes • backlit display and keypad • Size: 4.25" (H) x 2" (W) x 1.3" (D) excluding battery pack



**\$40**  
instant coupon  
on AT-201HP  
until 5/31/99

## AR-146 2 Meter Mobile

### AR-446 440 MHz Mobile

**AR-146:** Tx range: 144-148 MHz • Rx range: 136-171 MHz • Output: 50/15/5 watts • **AR-446:** Tx range: 430-450 MHz • Rx range: 400-470 MHz • Output: 35/15/5 watts

41 memories • CTCSS (50 tones) encode and decode • MARS capable (permits required) • Programmable band and memory scan • DTMF paging • Dual frequency watch • Frequency or channel display modes • Four step display dimmer • Small! Size: 1.5" (H) x 5.5" (W) x 6.25" (D)



Limited  
Quantities  
Available

## PR-52 6 Meter (50 MHz) HT

### PR-222 1.35 Meter (222 MHz) HT

**PR-52:** Tx range: 50-54 MHz • Rx range: 44-54 MHz • **PR-222:** Tx range: 222-225 MHz • Rx range: 216-229 MHz

5-watts output with included NiCd battery pack • MARS capable (permits are required) • built-in CTCSS encode and decode • 40 memory channels store any tone or offset • direct frequency entry using 16 button keypad • frequency or channel display modes • PC programmable (with optional software) or cable cloneable • Palm-sized! World's Smallest 6 Meter and 1.35-Meter singleband handhelds! Size: 4.25" (H) x 2" (W) x 0.75" (D) excluding battery pack!

**NEW!**



## AR-147\* 2M Mobile • AR-247\* 222 MHz Mobile • AR-447\* 70CM Mobile

The next generation of amateur single band mobile radios has arrived. These are the first amateur mobile radios ever to feature both CTCSS and DCS (Digitally Coded Squelch) encode/decode, and tone scan. DCS adds 106 new tones to the radio, in addition to the 50 standard CTCSS tones, that can be used for selective calling or repeater access.

**AR-147:** Tx range: 144-148 MHz • Rx range: 118-171 MHz (includes AM air) • Output: 50/15/5 watts • **AR-247:** Tx range: 222-225 MHz • Rx range: 215-229 MHz • Output: 30/15/5 watts • **AR-447:** Tx range: 430-450 MHz • Rx range: 400-470 MHz • Output: 35/15/5 watts

81 memories • CTCSS (50 tones) and DCS (106 tones) encode, decode, and tone scan • MARS capable (permits required) • 9 DTMF autodialer memories • Built-in redialer for autopatch use • Programmable band and memory scan • Time Out Timer • DTMF paging • Dual frequency watch • Auto Repeater Offset (AR-147 only) • Direct frequency entry using multi-function DTMF microphone • PC programmable (with optional software) • Auto Power Off • Frequency or channel display modes • Four-step display dimmer • Power line over/under voltage protection • Small! Size: 1.5" (H) x 5.5" (W) x 6.25" (D)

**NEW!**



\* These units have not yet been FCC approved. They are not, and may not be, offered for sale until after this approval is granted.

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E-mail: [premier@adi-radio.com](mailto:premier@adi-radio.com)



# PREMIER

communications

Products for ADI, Icom & Yaesu



**SPM-100**  
Speaker Microphone  
Full-sized electret speaker mic.  
Convenient revolving lapel clip.....**SPECIAL \$19<sup>95</sup>**

**SPM-300** Deluxe  
Speaker Microphone  
Locking PTT, built-in volume  
control. Lighted transmit  
indicator **CLOSEOUT \$34<sup>95</sup>**



**SPM-200/SPM-200E**  
Lapel Microphones  
Clips to your collar or lapel. Available with an earbud (SPM-200) or earhook (SPM-200E)..... **\$18<sup>95</sup> / \$21<sup>95</sup>**

**EH-1** Deluxe Earphone with Earhook  
• Super comfortable earphone with rubber covered earhook • Compatible with most radios • Low profile! Flesh-colored, coiled cord..... **\$15<sup>95</sup>**

## SHURE

**526T Series II SUPER PUNCH<sup>®</sup>**  
Transistorized Base Station  
Microphone Adjustable height,  
dynamic mic w/built-in preamp & out-  
put level control. Designed to replace  
ceramic/dynamic, high/low imped-  
ance mics originally supplied  
w/most equipment. 200-6,000Hz  
freq. response provides optimum  
intelligibility. Comes w/6-wire  
cable & triple pole double-throw  
locking PTT for wide range of mic to  
transceiver connection. Includes 9V batt .... **\$119<sup>95</sup>**



## ASTATIC

**10DA-L** High-Z dynamic SSB micro-  
phone head. Controlled 300-3000Hz  
response provides high attenuation of  
the unwanted sideband and better copy  
through interference. 2 1/2" w x 1 1/4" h x  
3/8" d, 17 oz. Black. Uses T-U99 stand,  
below..... **\$69<sup>95</sup>**

**D-104L** The original "super talk power"  
microphone head. High output and 300-  
7500Hz response with rising characteris-  
tics between 500 and 4000 Hz, provides  
maximum intelligibility. Shock proof  
cartridge with high-Z crystal element,  
metal sealed for protection. Solid  
machined brass parts, heavy mesh grille,  
all chrome plated. 3" diameter. x 1 1/4" d, 14  
oz. Uses the T-U99 stand, below.. **\$42<sup>95</sup>**

**T-U99** Accepts D-104L and 10DA-L  
microphone heads. Built-in adjustable  
preamp with output impedance, matches  
most transmitters. Side switch bar for PTT  
w/slide-up locking clamp. 8 1/2" h without  
head, 5 1/2" dia. base. Chrome and grey, 6-  
wire coiled cable. Uses 9 Volt batt. **\$52<sup>95</sup>**



Light-weight boom mic &  
headset combination for popu-  
lar handheld radios. Conven-  
iently folds-up for easy storage.  
Boom microphone pivots to  
allow left or right ear speaker  
position. Includes push-to-talk  
switch and 36" cord.

**MP-28** Icom, Standard Yaesu,  
Alinco version ..... **\$39<sup>95</sup>**  
**MP-28K** Kenwood ..... **\$39<sup>95</sup>**



**MFJ-288 Deluxe Headset Microphone<sup>™</sup>**  
(left) Lightweight, comfortable. Superb transmit  
audio - picks up your voice even at a whisper.  
Superb earphone tonal quality and intelligibility.  
The foam covered microphone element is attached  
to the headset with a flexible rubber extension  
which allows proper positioning of the micro-  
phone. The small PTT switch can held or con-  
veniently attached to your clothing. 6' of cord from  
headset to plug. MFJ-288I works w/ICOM, Yaesu,  
Standard, ADI, Radio Shack and compatibles. MFJ-  
288K works w/Kenwood and compatibles.... **\$24<sup>95</sup>**

**MFJ-292 Featherweight<sup>™</sup> Earphone/Mic**  
(right) An ear-plug earphone that fits comfortably  
in your ear. Tiny thumb size microphone with a  
push-to-talk switch with lapel/pocket clip built  
into the cord. Its high quality dynamic earphone  
and electret microphone gives your handheld crys-  
tal clear audio on receive and transmit. 4' cord.  
MFJ-292I works w/Icom, Yaesu, Alinco, Standard,  
ADI and compatibles. MFJ-292K for Kenwood and  
compatibles. MFJ-292Y works with Yaesu FT-10R,  
FT-40R, FT-50R and VX-1R transceivers only **\$17<sup>95</sup>**

## MFJ-392 Communications

Headphones Perfect for amateur  
radio and shortwave listening,  
great for all modes (SSB, FM, AM,  
data, CW). Superb padded head-  
band and ear cushioned design  
plus lightweight (8 ounces). High-  
performance driver units with  
100Hz-24,000Hz freq. response  
provide enhanced communication  
sound and outstanding speech  
fidelity. Each earphone has individ-  
ual volume and bass controls. Comes with gold plat-  
ed plug and 9 ft. cord. Power handling : 450 mW  
Impedance: 16Ω at 1 KHz Sensitivity: 102 dB/mW.  
Works in mono or stereo mode. Includes free 1/4  
inch adapter ..... **\$19<sup>95</sup>**



**MFJ-2981 VOX Speaker/**  
Mic In VOX position, just talk  
& the mic electronic circuitry  
automatically keys the HT.  
Red LED indicates when VOX  
is enabled. Designed to pick  
up your voice, not back-  
ground sound. 2 condenser  
mics used for feedback pre-  
vention. Adjustable sensitivi-  
ty for any voice & VOX  
"ON/OFF" switch allows use as a regular PTT speak-  
er/mic. Includes external earphone which can be  
plugged into the earphone jack for private monitor-  
ing, a 360° rotating lapel clip and 54" of stretchable,  
coiled cord w/2-prong plug. Compatible w/most  
Icom, Yaesu, Standard, Radio Shack, Alinco & ADI  
handhelds w/2-prong plug-ins ..... **\$39<sup>95</sup>**

## KOSS stereophones



**SP/5** Sidefiring Portable Stereophone in Sport  
Yellow Frequency Response: 40-20,000Hz • Straight,  
dual entry, 4' cord w/3.5mm plug • Sensitivity: 92dB  
SPL/1mW • Imped: 32Ω • 0.46 oz..... **\$7<sup>95</sup>**



**HP/6** Portable Stereophone Freq. Response: 30-  
16,000Hz • Dynamic element for full sound • Foam  
ear cushions for open, hear-through sound  
• Durable headband adjusts for best fit • Volume  
control on cord for easy level adjustment • Straight,  
single entry, 4' cord with 3.5mm plug • Sensitivity:  
91dB SPL/1mW • Impedance: 32Ω • 2.5 oz ..... **\$9<sup>95</sup>**



**KTX/4** Lightweight, Portable Stereophone Frequency  
Response: 40-20,000Hz • Collapsible design for easy  
storage and portability • Straight, dual entry 4' cord  
with 3.5/6.4mm stereo plug for home and portable  
use • Volume control on the cord for easy level  
adjustment • Sensitivity: 95dB SPL/1mW • Imped-  
ance: 32Ω • 2 oz. .... **\$14<sup>95</sup>**

**SW/5** Dynamic Microphone Headphone Single-  
sided, mono headphone with dynamic microphone  
for hands-free communications • Frequency  
Response: 60-20,000Hz • Mic. Impedance: 600Ω  
• Headphone Impedance: 32 Ω • Adjustable, head-  
band • Foam ear cushion for open, hear-through  
sound • Straight, single entry 4' cord with 3.5/6.4mm  
plug Sensitivity: 91dB SPL/1mW • 1.5 oz ..... **\$14<sup>95</sup>**

**SB/30** Dynamic Microphone Stereophone  
Stereophone with 600Ω dynamic microphone for  
hands-free communications • Closed, leatherette ear  
cushion for maximum isolation and deep bass  
• Frequency Response: 40-20,000Hz • Adjustable,  
padded headband for comfort during extended wear-  
ing periods • Straight, dual entry 8' cord with  
3.5/6.4mm Sensitivity: 100dB SPL/1mW stereo phone  
• Impedance: 100Ω • 9.0 oz ..... **\$49<sup>95</sup>**

**QZ/99** Passive Noise Reduction Stereophone with  
Mono/Stereo Switch • Frequency Response: 40-  
20,000Hz • Coiled, single entry, 8' cord with  
3.5mm/6.4mm plug • Sensitivity: 102dB SPL/1mW  
• Impedance: 60 Ω • 15 oz ..... **\$59<sup>95</sup>**

**QZ/2000** Noise Reduction Stereophone • Revolu-  
tionary Active Noise Reduction (ANR) stereophone  
system reduces harmful/annoying low frequency  
sounds in noisy environments >15dB SPL from 40-  
200Hz; average of 10dB SPL from 30-1000Hz  
• Frequency Response: 15-20,000Hz • Straight, dual  
entry, 4' cord • Includes compact control case and col-  
lapsible stereophone for convenient travel/portability  
• Adjustable headband • Includes input jack for audio  
play-through and 2-prong adapter for in-flight use  
• Sensitivity: 101dB SPL/1mW • Impedance: 5kΩ  
• Uses 2 "AA" batteries (incl.) • 2.3 oz..... **\$179<sup>95</sup>**





# Meet the Kenwood Family

**KENWOOD** has produced high quality communication and test equipment since 1946. Today Kenwood products are distributed in over 120 countries throughout the world and enjoy a reputation for reliability and technological innovation. Kenwood is committed to developing and building the finest quality components with state of the art technologies that will lead our customers and us into the 21st century.

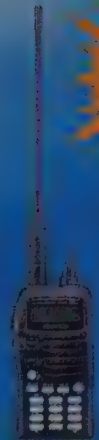
At Kenwood we understand and believe that precise technology is one of the cores of reliability and quality. One of our foundations of success is our ability to listen to our dealers and our customers to build the right products that give more for the dollar. Kenwood Communications Corporation is a company on the move, growing and changing with our customers and their needs.



**FR5**  
FR5



**TM-2341**  
2 meters



**TM-271A**  
2 meters & 440 MHz



**Built-In TNC**  
APRS/GPS mapping  
& messaging.  
Advanced sky  
command and  
VC-H1 functions.

**TM-271A**  
2 meters & 440 MHz w/TNC



**TM-271A**  
2 meters & 440 MHz



**KENWOOD**  
Pace-setting product  
Send color images  
on VHF/UHF or HF  
SSB/FM.  
(PC downloadable)

**Visual Communicator**



**TM-271A**  
2 meters/440 MHz



**TM-331A**  
220 MHz



**TM-271A**  
2 meters & 440 MHz



**TM-V7A**  
2 meters & 440 MHz



**TM-541A**  
1200 MHz



**TM-271A/271A**  
2 meters & 440 MHz/2 meters & 220 MHz



**TS-50/50S**  
HF All Mode/6 meter All Mode



**TS-5700S**  
HF All Mode



**TS-5705(G)**  
HF & 6 meter All Mode



**TS-5705**  
HF All Mode



**TS-950SDX**  
HF All Mode



**KENWOOD**  
Amateur Radio Products Group

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# Catch A DSP Wave



## TS-570D(G) HF TRANSCEIVER/TS-570S(G) HF + 6M TRANSCEIVER

Kenwood has not been standing still since the introduction of the TS-570D/S HF Transceiver last year. Now you can command even more of Kenwood's advanced DSP technology with the G model.

The **DSP** filters and extracts signals with digital technology that is unmatched with standard analog circuits. It provides **CD-class transmit and receive audio quality** that can be shaped to your needs, and two powerful noise reduction systems: **Line Enhancer Method** for SSB/AM modes, and **Speech Processing by Auto Correlation (SPAC)** for CW mode. DSP also enables the **CW-Auto Tune** feature that automatically zero-beats CW signals.

The **Extensive Memory Functions** provide a bank of 100 memory positions split into 90 standard channels for general operation and 10 for programmable VFO, programmable scan and long-term memory. Memory contents can be scrolled, copied or locked out. In addition there are **5 quick memories** for storing frequencies and modes on the fly, perfect for the busy DX contest.

The powerful **Menu System** incorporates **46 menu features** and an **on-line guide** for instant reference. The **large amber backlit LCD display** provides 4 light levels for clear readability under any lighting conditions.

The TS-570D/S has no shortcomings in the construction and performance area. The **continuous-duty 100 watt transmitter** incorporates a large

heavy-duty heat sink with integrated cooling fan for non-stop operation even under extreme environmental conditions. The **wide-band receiver** is rock-stable from 500 kHz through 30 MHz with **dual pre-amps** and **dual bandpass filters** for exceptional selectivity and sensitivity.

With the features and performance of a high-end radio integrated into an affordable mobile-size package, the TS-570D/S is the perfect choice for the field or to build a full station around at home.

- ▶ **FREE operating manual via FTP site**  
<ftp://ftp.kenwood.net>
- ▶ Beat cancel
- ▶ 2 position antenna switch
- ▶ CW auto tune adjust (a world's first)
- ▶ Channel scan, program band scan, memory scan with channel lock-out and group channel scan, all with TO (time operated) or CO (carrier operated) resume modes
- ▶ Compact 10-5/8 inch by 3-3/4 inch front panel size for any travel or installation requirement
- ▶ Preset auto antenna tuner with 18 sub-bands
- ▶ Variable electronic keyer (0 and 100 wpm)
- ▶ Packet and FSK features
- ▶ RCP-2 software for PC-based display and memory configurations available via the Internet
- ▶ Full functionality on 6M (TS-570S) including DSP, 100 watts output and preset Auto Antenna Tuner

### TS-570D/S (G) new features

- TX sound quality monitor with 9-step monitor volume for absolute control over voice quality
- NR1 (SSB) is operator controllable in 9-step increments, or automatically tracks input signal strength
- New CW DSP Filters (80 Hz, 150 Hz and 500 Hz) give you a total of 11 user-selectable filters
- NR1 and NR2 settings can now re-configure automatically when changing mode groups (SSB/AM/FM to CW/FSK)
- Manual weight feature (with built-in electronic keyer) for adjusting the relative length of dots and dashes in 16 steps between 1:2.5 and 1:4.0
- Equalize receive signals, and use different settings for both TX and RX
- "One-touch" DSP filter wide mode allows 'resurfacing' to check the band conditions when operating in narrow mode
- Dual selectable Beat Cancel (BC) works against intermittent beat interference (except in CW mode)
- CW auto tune mode links only with the RIT frequency without changing the transmit frequency.

Advance Technology Upgrade is available in new production models and for pre-existing TS-570D/S; contact your dealer for details.



**ISO 9001  
JQA-1205**  
Communications Equipment Division  
Kenwood Corporation  
ISO9001 certification

**KENWOOD**  
Amateur Radio Products Group

KENWOOD COMMUNICATIONS CORPORATION  
AMATEUR RADIO PRODUCTS GROUP  
P.O. Box 22745, 2201 E. Dominguez St., Long Beach, CA 90801-5745, U.S.A.  
Customer Support/Brochures (310) 639-5300 99ARD-1871-SCV/#033099

**INTERNET**  
Kenwood News & Products  
<http://www.kenwood.net>



# TH-D7A

## DATA COMMUNICATOR

### A NEW WORLD OF AMATEUR COMMUNICATIONS

Unique Jog Controller  
w/Backlite Keys

Emergency Communications  
and Position

Grid Square/Distance/Direction  
Information

Monitor DX Packet Clusters

Complete Line of Accessories

PC Connectivity Used For  
Programming/APRS/Packet

Advanced VC-H1 Controller

MIL-STD 810 C/D/E  
Water Resistance

Weather Station & PHG  
Data Reception

APRS Messaging Up To  
45 Characters

Remote Control HF Operation  
w/SkyCommand

- ▶ FM dual-band (144MHz/440MHz) hand held
- ▶ 5.5 Watts @ 13.6 volts
- ▶ 200 memory channels w/8 alpha display
- ▶ Built-in CTCSS encode and decode
- ▶ Built-in 1200/9600bps TNC (AX.25 protocol)
- ▶ Unique cursor key for easy menu navigation
- ▶ Built-in APRS™ (Automatic Position Reporting System) software
- ▶ GPS interface for position/directional data (NMEA-0813)
- ▶ Manual input of latitude/longitude (No GPS required)
- ▶ Large 12 digit x3 line dot matrix display
- ▶ 16 backlit keys (laser cut from inside)
- ▶ Dual RX on the same band for voice and data (VHF only)
- ▶ PC Programmable for frequency and name (PG-4W required)

- ▶ 16-digit 10-channel DTMF memory
- ▶ SkyCommand System (KSS) II for remote control of fixed HF transceivers
- ▶ Monitor DX Clusters
- ▶ DTMF remote control (TM-742A/TM-V7A)
- ▶ Dual receive on same band V+V/V+U
- ▶ AIP (intermod rejection)
- ▶ Free Operation manual at [ftp://ftp.kenwood.net](http://ftp.kenwood.net)



ISO 9001  
JQA-1205

Communications Equipment Division  
Kenwood Corporation  
ISO9001 certification

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99ARD-1857

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## SG-2020 COMPACT HF SSB/CW TRANSCEIVER

**SGC 05-01**  
**\$675<sup>95</sup>**



**The ultimate "take-along" Portable!**

Designed as a small, low power, low cost USB/LSB/CW HF companion for travel, where space is limited, or where only portable power is available.

Small, but fully microprocessor-controlled and loaded with "Big Rig" features. Take it and use it anywhere – fixed, mobile, portable, aviation or boating. Operating from 12V DC, it has the lowest current consumption on the market, drawing typically 430mA in receive & less than 3 amps at 20W CW output on transmit.

Transmit power is adjustable from 0-20W PEP output & covers 1.8 to 29.7 MHz (U.S. Ham bands only). An RF speech processor utilizing VOGAD baseband processing & RF clipping provides plenty of DX "talk-power".

The range of the General Coverage Receiver extends all the way from 400kHz to 29.7MHz for exciting worldwide reception of broadcast and shortwave stations. A back lit LCD display shows a 100Hz freq. resolution (10Hz overall res.). There are 20 Simplex or Semi-Duplex memories to store favorite operating frequencies.

Other functions and features include: SPLIT, RIT, XIT and tunable 100 to 2700Hz A.F. Bandpass. Also, a noise blanker, a fully adjustable (5 to 60 WPM) IAMBIC "B" mode keyer and convenient SWR metering and battery voltmeter. Dynamic hand microphone is included. "Smallest" portable rig, only 2.75"h x 5.9"w x 7"d, 4.4 lbs.

## SG-231 Smartuner®



**SGC 54-17** **Smart, slim version of the**  
**\$529<sup>95</sup>** **intelligent Smartuner™**

- Complete frequency agility with no operator intervention
- Continuous coverage of 1 to 60MHz at 100W with almost any antenna
- Compact design, fits the most restrictive installations
- Weatherproof case allows mounting at antenna feed point for highest efficiency

Uses a microprocessor-controlled pi of L network to match virtually any load to your transceiver; with the SWR always 1:1.5 or better. Tuning solutions are stored in a non-volatile memory for fast (10ms) automatic recall! Operates with any HF or VHF transceiver, 3 to 100W, and requires only 12VDC and RF connections.

## SG-230 Smartuner®



**200W Microprocessor Controlled Antenna Coupler for HF-SSB, AM, CW & DATA**

You can't buy a smarter tuner. An automatic coupler so intelligent it precisely tunes any length antenna – 8 to 80 ft. in the HF band.

The Smartuner® automatically evaluates and switches 64 input & 32 output capacitance combinations, plus 256 inductance combos in a "pi" network.

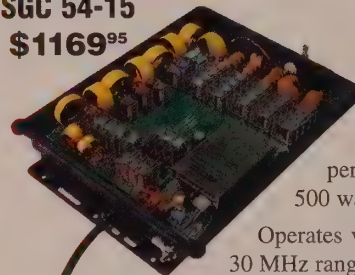
The amazing result - it automatically selects from over a half-million different ways to ensure a perfect match for your transceiver.

The most intelligent feature is that the Smartuner remembers the chosen frequency and tuning values in less than 10 ms, each time you transmit on that frequency.

1.8-30 MHZ RANGE • 3-200 WATTS INPUT  
TUNES TO 80 FT. ANTENNAS (ALL TYPES) • MICROPROCESSOR CONTROLLED • 10MS TUNING TIME • NON-VOLATILE MEMORY • WATER-PROOF • 2"d X 10"w X 12"d

## SG-235 Smartuner®

**SGC 54-15**  
**\$1169<sup>95</sup>**



**500W Microprocessor-Controlled HF Antenna Coupler**

SmartTuning – now you can achieve perfect coupling to your HF rig at the 500 watt power level.

Operates with any HF transceiver from 1.8 to 30 MHz range with 3 to 500 watts output power.

Automatically tunes any length antenna from just 23 ft. long without preliminary tuning or adjustments.

The built-in microprocessor evaluates and switches 64 input and 32 output capacitance combinations plus 256 inductance combinations in a "pi" network (over a half-million possible combinations). The chosen frequency and tuning values are remembered allowing reselection of those values in less than 10 ms, each time you select that frequency. Flexibility is a key feature with its attractive options, including 24V DC.

• MICROPROCESSOR CONTROLLED • 1.8 TO 30 MHZ RANGE  
• 3-500W INPUT • TUNES FROM 23 FT. ANTENNA AT FULL POWER •  
NON-VOLATILE MEMORY • 10-MS RETUNING TIME • WATERPROOF •  
16d" X 12"w X 3"h INCHES

*See Price List for selection of options and accessories for SGC Products*



# SG-2000 HF SINGLE SIDEBAND GLOBAL RADIO TELEPHONE

## FULL FREQUENCY COMMUNICATIONS FOR VOICE AND DATA

Make contact anywhere with the power-packed SG-2000 – a rugged HF transceiver with 1.8 to 30MHz coverage and 150W PEP output. Engineered for simple and efficient operation, the SG-2000 features an alarm generator, upper/lower sideband, true amplitude modulated (AM) receiver and channel scan as standard features.

Talk anywhere in the world on the HF Ham bands, receive and send time sensitive documents, decode UPI transmissions, get latest weather reports or listen to shortwave broadcasts from around the world. Great for marine – highly stable & rugged.

Exceptional features include 644 factory programmed ITU voice and data frequencies plus 100 field programmable channels. Scan all ITU channels and up to 100 memory channels in adjustable scan speeds and rates. An extra large liquid crystal, wide angle display with adjustable backlighting provides easy viewing day or night.

Optionally, the SG-2000 can be fully computer controlled by any standard RS-232 protocol connector to allow easy flow and management of data communications on RTTY, ARQ (SITOR), FEC, Packet and telegraphy modes. Fast RX/TX switching time ensures easy and secure data transmissions.

The compact front panel of the SG-2000 can also act as the remote head terminal, and up to 8 full function remote heads can be utilized. The remote heads can be mounted flush with the bulkhead so they do not intrude on people space and the high-impact, abrasion and water resistant housing will stand up well in the toughest environments. The optional universal 5-way head mount orients the control head in any direction, for easy operation.



**SGC 04-01**  
**\$1329<sup>95</sup>**

- Power Output: 150 watts PEP
- Transmitter frequency range: - 1.8 to 30 MHz
- Receiver frequency range: 500kHz to 30 MHz
- Modes: A3A, A3H, A3J and CW in LSB and USB, true AM in receive mode & data.
- Channels: 100 channels field programmable, 644 channels factory programmed ITU and data.
- Scan Channels: Up to 100 scan channels programmable in 10 groups
- Power Requirement: 13.6 VDC; 0.8A RX – 16A TX (voice)
- Size: 4 3/4" h x 10" w x 15" d • Weight: 12 lbs

*See Price List for selection of options and accessories for SGC Products*

## PowerTalk™ Stunning HF-SSB Receive Clarity with SGC DSP



**SGC 04-10**  
**\$1679<sup>95</sup>**

With SGC's PowerTalk™ SG-2000, you'll intercept more weak HF signals, increase signal clarity and eliminate unwanted noise. You'll hear SSB signals clearer and easier than ever before. A true HF-SSB Power Tool!

PowerTalk™ combines the advanced receiver technology of SGC's exclusive ADSP™

(Automatic Digital Signal Processing) and SNS™ (Signal Noise Subtraction). Fast audio and visual tuning – a DSP command center with a high performance spinner knob & bright LED indicators.

*Includes all of the outstanding features of the SG-2000: 644 Ham and ITU discrete frequencies, programmable memory, large LCD display and 150 watts of power output.*

## DSP HF Modem with SmartEmailer™



*Link to the world!* – transmit and receive e-mail via common mode carrier or receive weather bulletins/forecasts anywhere around the globe.

Requires an HF radio with SITOR compatibility, and a laptop computer running a general purpose communications program.

Designed for digital communications or as a free-standing general-purpose processor for embedded applications. Features open hardware/software architecture running DOS and Windows applications. Works with public domain protocols or develop your own custom modem sets for advanced protocol development.

Programmable, field upgradable, easy to use graphical user interface ..... **SGC 56-40 \$695<sup>95</sup>**





## FOUR-WHEEL-DRIVE BASE STATION...

... add a  
**QMS™ Antenna Tuner System**  
to your **HF-SSB mobile**

For any HF-SSB rig from 1.8 to 30 MHz, up to 300W. Incorporates an SGC Smarttuner® along with an efficient whip antenna and the QMS™ Quick Mounting System case which enables installation of the coupler and antenna on any small or large vehicle without drilling any holes.

Installation can be on the side or on the trunk, or roof – whatever location is convenient. It can be temporary or long-term and takes only 15 minutes. Supplied with straps, buckles & 4 suction cup feet to prevent damage to the vehicle surfaces. Strap hooks can be secured up to 5½ ft. apart.

The SG-303 antenna is a light-weight mobile antenna for operation from 1.8–30MHz, providing wide a frequency range and ease of tuning with the Smarttuner®. Total length is 9 ft. in two sections with no traps to degrade performance. The inner core is a large gauge stainless steel rod with a layer of fiber composite helically wrapped with 3mm copper strap which is equal to #4 wire.

The antenna installs on a sturdy weatherproof rubber encapsulated spring mount. The adjustable base and ratchet mechanism allows for easy orientation.

**The QMS™ Quick Mount System comes in 5 different packages, as follows:**

**QMS** The basic Quick Universal Mount System case. Includes strapping elements and 4 suction cups to mount the SGC coupler and antenna on any vehicle. Antenna & Coupler are not supplied.

**55-46** – The QMS (above) *plus* the SG-230 Automatic Coupler.

**55-47** – The QMS *plus* the SG-230 Automatic Coupler & SG-303 9 ft. whip with mounting hardware.

**55-48** – **500W SYSTEM** The QMS™ *plus* the SG-235 Automatic Coupler and SG-303 1.8– 30 MHz HF antenna System with mounting hardware.

**55-49** – The QMS *plus* the SG-231 Automatic Coupler and the SG-303 7 ft. dual resonant whip antenna with mounting hardware. Provides continuous 1–60 MHz operation.

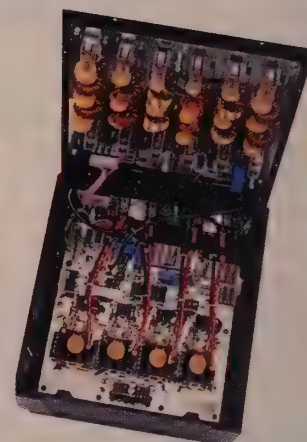
# BRAIN POWER

**SG-500**



**Smart  
PowerCube**

**SGC 52-96  
\$999<sup>95</sup>**



## Microprocessor Controlled Linear Amplifier for 1.8 to 24 MHz

The SG-500 SmartPowerCube produces tremendous power—nearly as much as a 1000W amplifier, but it requires less than one cubic foot of space.

Electronic brain power makes this possible. The SG-500 is an intelligent, microprocessor-controlled high power linear amplifier, designed with high efficiency transistors. Its electronic brain constantly monitors your HF-SSB's activities, power needs, and antenna condition, and automatically—in less than 15 milliseconds—selects the right broadband filter.

Designed to perform reliably and essentially unattended, in the most demanding conditions. For maximum power – intelligent power – at low cost, the Smart Power Cube is just the amplifier for you.

- Covers: 1.8 to 24 MHz • Power Output: SSB: 500W PEP; CW: 500W for 10minutes, no fan; 500W unlimited with fan; AM: 250W carrier maximum • Automatic bandswitching
- Protection: Input overdrive, over current, over temperature
- Size: 6" x 12¼" d x 11¼" w

**See Price List for selection of options and accessories for SGC Products**



# TRUE MIL-SPEC TOUGHNESS

## THE HERITAGE CONTINUES



# FT-2600M

## HEAVY-DUTY VHF FM TRANSCEIVER



The FT-2600M is a deluxe, compact FM mobile transceiver providing high power output and outstanding receiver performance for the 144 MHz band. Included in the FT-2600M's feature complement are:

### Features

- 60 Watts of power output, with selection of four power levels for every operating situation.
- Expanded receiver coverage: 134-174 MHz.
- Keyboard entry of operating frequencies from the microphone.
- Excellent protection from receiver intermodulation distortion, thanks to Yaesu's renowned Advanced Track Tuning front end.
- Outstanding packet radio capability at 1200 or 9600 bps with easy interface via a dedicated rear-panel jack.
- 175 memories which can store repeater shifts, odd repeater shifts, CTCSS/DCS tones, and 8-character Alpha-Numeric labels.
- Built-in CTCSS and DCS Encoder/Decoder circuits.
- The Smart Search™ feature automatically sweeps a band and loads active frequencies into a dedicated memory bank.
- The Yaesu-exclusive Omni-Glow™ multi-function LCD display.
- Yaesu's exclusive ARTS™ (Auto-Range Transponder System), which alerts the operator when an "out-of-range" condition exists with another ARTS™-equipped station. This feature is especially valuable during search-and-rescue operations with hand-held units.
- Extensive MENU system, which allows customization of a number of transceiver performance characteristics.
- Additional features include a transmit Time-Out-Timer (TOT), Automatic Power-Off (APO), Automatic Repeater Shift (ARS), plus provision for reduction of the TX deviation in areas of high channel congestion. And an all-new S-Meter Squelch circuit allows the owner to set the squelch to open at a programmable setting of the S-Meter, thus reducing guesswork in setting the squelch threshold.

**YAESU**  
...leading the way.™

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Specifications subject to change without notice. Specifications guaranteed only within Amateur bands. Some accessories and/or options are standard in certain areas. Check with your local Yaesu dealer for specific details.

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Visit us on the Internet! <http://www.yaesu.com>



# HF ENTHUSIASM

Yaesu, Choice of the World's top DX'ers

## FIELD COMMANDER



Over 40 years of experience in HF transceiver design has firmly established Yaesu as the choice of the world's top DX'ers. The knowledge that produced unequalled RF technology and design that is found in the State of the Art FT-1000MP can also be found in the miniature FT-100. The FT-100 while small in size 6.3" x 2.1" x 8.1" (160 W x 54 H x 205 D mm w/o knob) is large in features and performance. This is accomplished by using the most advanced manufacturing techniques and component mounting technology. High Dynamic range RF front-end technology and Advanced Digital technology such as DSP sets a new standard of receiver performance for miniature HF transceivers. The single piece die cast frame, dual cooling fan system and revolutionary RF high power design technique keeps the FT-100 running cool and smooth in the most adverse operating environments. (TX Power output=100W HF, 50W VHF/20W UHF) The TX Equalizer offers crisp, clear and clean TX audio reproduction that until now was only found in top of the line HF base stations. The optional ATAS-100 (active tuning antenna system) ushers in a new age of mobile and field day operation (from HF to UHF frequencies). Add the optional ATBK-100 base kit (Good for limited space, simple setup.) and you've got a base station that ranks among the best in the world.

### Features

- Frequency coverage:  
RX : 100 kHz-961 MHz (cellular blocked)  
TX : 160-6 m/144-148 MHz/430-450 MHz
- Power output : 100 W (160-6 m), 50 W (144 MHz), 20 W (430 MHz)
- DSP Bandpass Filter, Notch Filter, Noise Reduction and Equalizer
- IF Noise Blanker
- SSB, CW, AM, FM, AFSK, Packet (1200/9600 bps) operation
- Detachable Front Panel
- Two Antenna Jacks (HF/50 and 144/430)
- IF Shift
- VOX
- Dual VFOs

- Available IF bandwidths of 6 kHz, 2.4 kHz, 500 Hz and 300 Hz (6 kHz, 500 Hz, 300 Hz filters optional)
- Built-in Electronic Memory Keyer
- Speech Processor
- Built-in CTCSS and DCS for FM operation
- Automatic Repeater Shift and Auto-Range Transponder System
- Smart Search™ Automatic Memory Channel Loading System
- 300 memory Channels
- Quick Memory Bank (QMB)



- Bright LCD with multi-function display
- Optional FC-20 External Antenna Tuner
- Compatible with ATAS-100 Active-Tuning Antenna System. Add the optional ATBK-100 base kit

### FIELD COMMANDER

## FT-100

Ultra-Compact HF/VHF/UHF Transceiver

**YAESU**

Choice of the World's top DX'ers

For the latest news, hottest products,  
Visit us on the Internet! <http://www.yaesu.com>

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# INTRODUCING THE MOST DURABLE HT EVER!



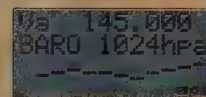
## VX-5R

50/144/430 MHz TRIPLE-BAND  
HEAVY DUTY FM TRANSCEIVER



### Features

- Frequency Coverage
- Wide Band Receive
- RX : 0.5-15.995 MHz 48-728.990 MHz
- 800-998.990 MHz (Cellular Blocked)
- TX : 50-54 MHz 144-148 MHz
- 430-450 MHz
- 5 W Power Output (430 MHz: 4.5 W)
- AM/Shortwave Receive
- AM Aircraft Receive
- Ultra Compact: 2.4" x 4.1" x 1.3"
- Aluminum Diecast Case
- MIL-STD 810 Rating
- High-Capacity Lithium-Ion Battery: 7.2 V @ 1100 mAh!
- CTCSS and DCS Built In
- Dot Matrix LCD
- Optional Barometric Sensor Unit



- Dual Watch
- Spectra-Scope™ Graphical Display
- 220 Memories plus "Home" Channels
- Ten Pairs of "Band Limit" Memories
- Ten Auto-Scan Weather Channels (North American version)
- 8-Digit Alphanumeric Memory Tags
- Convenient Icon Display Mode
- Smart Search™ Automatic Memory Loading
- Automatic Repeater Shift
- Auto-Range Transponder System (ARTS™)
- Multiple Battery Savers
- Time-Out Timer (TOT)
- Busy Channel Lock Out (BCLO)
- Versatile High-Speed Scanning
- 16-Digit 9-Memory DTMF Autodialer
- One-Touch Emergency Channel
- ADMS Windows™ PC Programmable
- Innovative Multi-Section Antenna
- Full Line of Accessories

## YAESU

*leading the way.*



FT-50RD  
5 W Heavy Duty  
Dual Band Handheld

VX-1R  
Ultra Compact  
Dual Band Handheld

Actual Size 5 W Version

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# MFJ



## Professional Classroom Tutor

**MFJ-414** Features include LCD readout, printer port and audio tape recording output. Build and save three custom sets (16 characters each) for extra practice. Or combine these to give you 48 characters for using the KOCH method. Customize random words for practice, too. Use with 144/440MHz FM HT or HF transceiver for on-air code practice. VECs can give up to 16 exams. Full-featured memory keyer - has 1000 character memory, semi/auto modes, iambic A/B, reverse paddle, change speed and tone on-the-fly. Practice sending into the MFJ-414 with iambic paddle or straight key. Use built-in or external speaker or headphones. Includes serial port cable and open-end patch cable. 12 VDC or 110 VAC. 8 1/2" w x 2 1/4" h x 6" d..... **\$189<sup>95</sup>**

**MFJ-281** External ClearTone™ Speaker. Use with above for loud volume..... **\$9<sup>95</sup>**

**MFJ-1315** AC Adapter..... **\$14<sup>95</sup>**

## MFJ-554 Code Practice Oscillator

Designed for classroom use and abuse with great sound that enhances learning of Morse code. Plenty of volume from a built-in 1W amp and 3" speaker. Volume control and adjustable tone control. 400-1000Hz. On/Off switch, power ON LED, 1/4" key jack, 3.5mm external speaker jack and DC power input jack. Required 12V DC. Rugged all-metal enclosure. 4 1/4" x 1 1/2" h x 5" d..... **\$79<sup>95</sup>**

**MFJ-281** External ClearTone™ Speaker. Use with above for loud volume..... **\$9<sup>95</sup>**

**MFJ-550** Telegraph Key..... **\$7<sup>95</sup>**

**MFJ-1315** AC Adapter..... **\$14<sup>95</sup>**

## 407D Deluxe Electronic Keyer

Features dot-dash mem., self completing dots and dashes; jam-proof spacing. RF proof, instant start. Single squeeze, or straight key. Front panel controls: speed, weight, tone & volume, ON/ OFF, tune, auto or semi-automatic. Selectable A or B-type iambic keying. Built-in speaker, uses 9V battery or MFJ-1312B AC adapter. 7" x 2" x 6" d..... **\$69<sup>95</sup>**

**401D Econo Electronic Keyer II** Similar to MFJ-407D but with external speed and volume controls, internal weight and tune controls. Uses 9V battery or MFJ 1312 AC adapter..... **\$49<sup>95</sup>**

## 492 Menu Driven Memory Keyer

No complex sequences. Save messages; decrement serial #; enter iambic, semi-auto, handkey, message queue, paddle modes; select iambic A/B; Morse trainer; store starting serial #. Holds 192 characters in 4 mem., expand to 8K+ characters in 8 mem. Lith. batt. back-up. Front panel controls for speed (5-100 WPM) and volume, sidetone speaker. Direct and grid block keying. 9V battery or 110V AC adapter. 6 1/2" x 2 1/2" x 6 1/4"..... **\$89<sup>95</sup>**

**493** All features of the 492, but with 32K memory IBM keyboard input, serial port for computer interface and QSO simulator..... **\$129<sup>95</sup>**

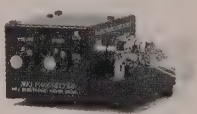
**451** Morse Keyboard Stand-alone CW keyboard with 200 character type-ahead buffer, and two 100 character messages. Requires 12VDC or MFJ-1312B 110VAC adapter..... **\$89<sup>95</sup>**

**452** Morse Keyboard with 16 character LCD display. Comes with keyboard..... **\$119<sup>95</sup>**

## 422D Keyer-Paddle Combo

Keyer unit installs on top of Benchner iambic paddle. Uses Curtis™ chip. 9 to 50 wpm. Adjustable weight and tone, dot-dash mem. & sidetone. Semi-automatic & tune or auto modes. Keys grid block, cathode or solid state. Uses 9V batt. or AC adapter. 4 1/8" x 2 1/8" x 5 1/2" d..... **\$144<sup>95</sup>**

**422DX** Keyer only..... **\$79<sup>95</sup>**



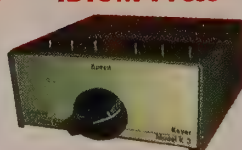
# LOGIKEY

Full featured version of the famous Super CMOS III keyer design! This new super friendly Fully Iambic Keyer offers:

**K-3** Non-volatile memory. • 6 editable messages, 1,530 characters • Messages can include powerful programmed functions, eg. automatic contest numbers, speed changes, pauses • Message can allow paddle inserted text and loop for continuous replay • Linear speed control - 5-60 WPM • Adjustable weighting and monitor tone • Tune function • Auto character spacing if desired • Can emulate other keyers, including Curtis "A" timing • Ultra Speed Mode for messages up to 990 WPM! • Contest serials 001-9999, with push button decrement • Beacon capability • Full compensation for QSK rig timing • Keys solid-state or grid-blocked tube rigs. • 12V DC, < 0.1 amp • 4 1/4" w x 2 1/4" h x 4 1/4" d..... **\$119<sup>95</sup>**

**HK-3** Hook-up kit for the K3. Includes Paddle to Keyer Cordset; RCA to RCA Keyer Output Cable and 2.5 mm DC Power Plug Cordset for 12V..... **\$10<sup>95</sup>**

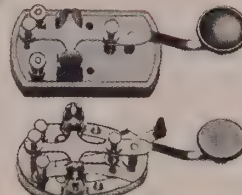
## IDIOM Press



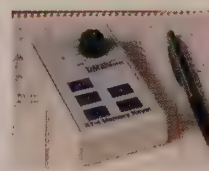
**OCM-2** Combination Code Practice Oscillator & CW Monitor  
Volume control, 3" speaker, and headphone terminals. Requires a code key and a 9V battery.  
**Kit \$19<sup>95</sup> • Wired \$24<sup>95</sup>**

**K-1** Low-cost general purpose key with phenolic base, adjustable tension and contact spacing..... **\$10<sup>95</sup>**

**K-4** Deluxe high quality key. Polished brass base, shorting bar..... **\$16<sup>95</sup>**



More AMECO Products - See Price List & Index



## UM Unified Microsystems

**XT-4** CW Memory Keyer  
Designed for QRP, Field Day, mobile CW county hunting - any portable operation. Size also goes

well in the shack with new smaller rigs. 8-45 WPM. Memories: 4 with 100 Morse characters each Positive keying output only via RCA phono jack output. 1/8" (3.5mm) stereo jack input. Paddle reverse for left or right hand operation. Auto power save mode w/flashing LED engages after 30 minutes of inactivity. Requires 9V alkaline battery..... **\$79<sup>95</sup>**  
**KC-4** Cable set for XT-4..... **\$9<sup>95</sup>**

# BENCHER, INC.



**"RJ" HAND MORSE KEYS** • A superb and responsive instrument which will bring new pleasure to traditional Morse keying. Features include oil impregnated sintered bearings at pivot points to impart friction-free pivoting and wobble-free vertical tracking. Stainless steel locking screw allows individual adjustment for arm height, tension and contact spacing. Black "Navy" style knob with removable skirt gives a solid feel with outstanding tactile feedback. Heavy metal base available in black texture or chrome finish with anti-skid rubber feet.

**RJ-1** Black base **\$95<sup>95</sup>** • **RJ-2** Chrome base **\$110<sup>95</sup>**



# VIBROPLEX



The Original "Bug", patented in 1904, is still manufactured today using tools & dies similar to those used by its inventor, Horace G. Martin. Designed for code speeds of 20-50+ wpm. Standard model - painted base and chrome top parts. Deluxe model - polished chrome base and top parts with fine jewel movements for smooth oper. Presentation model - polished chrome base with 24K gold-plated base plate & chrome top parts. Gold model - gold-plated base with chrome top parts.

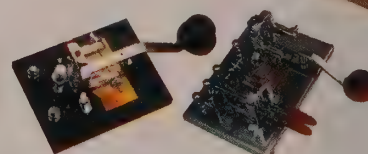
**Standard (#110) \$159<sup>95</sup> • Deluxe (#105) \$199<sup>95</sup>**  
**Presentation (#100) \$269<sup>95</sup> • Gold (#090) \$299<sup>95</sup>**

**Vibrokeyers** Single lever paddle (top) initiates automatic dots & dashes of an electronic keyer. Iambic paddle allows auto dot & dash insertion. Standard: black base, chrome parts; Deluxe: chrome base and top parts with jeweled movements; Presentation: (iambic only) 24K gold-plated base and top parts with jeweled movements; Gold: 24K gold-plated base and top parts with jeweled movements.

**Vibrokeyer: Standard (#120) \$139<sup>95</sup>**  
**Deluxe (#115) \$179<sup>95</sup> • Gold (#113) \$269<sup>95</sup>**  
**Iambic: Standard (#135) \$139<sup>95</sup>**  
**Deluxe (#130) \$179<sup>95</sup> • Presentation (#125) \$239<sup>95</sup>**  
**Gold (#123) \$269<sup>95</sup>**

**Brass Racer Iambic** Solid brass iambic paddle mounted on a polished hardwood base. (#145) **\$99<sup>95</sup>**

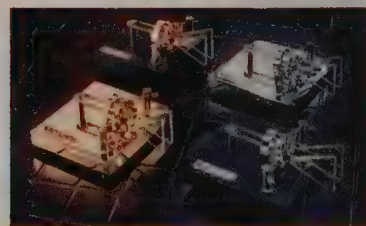
**Square Brass Racer** Solid lacquered brass iambic paddle on a polished hardwood base. Magnetic action, no springs.... (#150) **\$139<sup>95</sup>**



**Straight Keys:** Unique mechanical action, unlike any straight key ever manufactured.  
**Standard (#155) \$139<sup>95</sup> • Deluxe (#160) \$179<sup>95</sup>**  
**Gold (#153) \$269<sup>95</sup>**

**Deluxe Double Keys:** Choice of Iambic & Straight or Vibrokeyer & Straight Key. Double keys allow you to instantly switch from using an electronic keyer to the personal touch of a Straight Key.

**Straight key/Iambic (#165) \$319<sup>95</sup>**  
**Straight key/Vibrokeyer (#170) \$319<sup>95</sup>**



**IAMBIIC & SINGLE LEVEL PADDLES** • The highest quality, offering precise control, reliability and years of trouble-free operations. Wide-range adjustment of tension and contact point spacing. Self adjusting needle bearings, gold-plated solid silver contact points, and polished acrylic plastic paddles. The Main frame, contact post, spring posts and bearing ring are all precision machined from solid brass, then chrome or gold plated for durability and rich appearance. Heavy steel base with non-skid feet.

**BY-1** Black base **\$94<sup>95</sup>** • **BY-2** Chrome **\$109<sup>95</sup>**  
**BY-3** Gold **\$279<sup>95</sup>** • **BY-4** Black, Gold comp. **\$149<sup>95</sup>**



# MFJ Switching Power Supplies

Power your HF transceiver, 2 meter/440 MHz mobile/base and accessories with these new 25 or 45 Amp MFJ MightyLite™ Switching Power Supplies!

No RF hash . . . Super lightweight . . . Super small . . . Volt/Amp Meters . . .

MFJ's new adjustable voltage switching power supplies do it all! You can power your HF transceiver or 2-Meter/440 MHz mobile or base and accessories.

MFJ's MightyLites™ are so light and small you can carry them in the palm of your hand! Take them with you anywhere.

No more picking up and hauling around heavy, bulky supplies that can give you a painful backache, pulled muscle or hernia.

MFJ's 25 Amp MightyLite™ weighs just 3.7 lbs. -- that's 5 times lighter than an equivalent conventional power supply. MFJ's 45 Amp is even more dramatic -- 8 times lighter and weighs just 5.5 pounds!

## No RF hash!

These babies are clean! Your buddies won't hear any RF hash on your signal! You won't hear any in your receiver either!

Some competing switching power supplies generate objectionable RF hash in your transmitted and received signal.

These super clean MFJ MightyLites™ meet all FCC Class B regulations.

## Low Ripple and Highly Regulated

Less than 35 mV peak-to-peak ripple under 25 or 45 amp full load. Load regulation is better than 1.5% under full load.



## Fully Protected

You won't burn up our power supplies! They are fully protected with Over Voltage and Over Current protection circuits.

## Worldwide Versatility

MFJ MightyLites™ can be used anywhere in the world! They have switchable AC input voltage and work from 85 to 135 VAC or 170 to 260 VAC. Replaceable fuse.

## MightyLites™ . . . Mighty Features

MFJ MightyLites™ feature a front-panel voltage control. It lets you vary the output voltage from 9 to 15 Volts DC, highly regulated.

You get an easy access front-panel with five-way binding posts for heavy duty use and a cigarette lighter socket for mobile accessories. MFJ-4245MV has two sets of quick-connects on the rear for accessories.



Large 3 inch dual meters are brightly illuminated to make it easy to monitor load voltage and current.

A whisper quiet internal fan efficiently cools your power supply for long life.

## MFJ "No Matter What™ Warranty"

MightyLites™ are covered by MFJ's famous No matter What™ one year limited warranty. MFJ will repair or replace (at MFJ option) your supply for one full year.

## Two models to choose from . . .

**MFJ-4225MV** (left) 25 Amps maximum or 22 Amps continuous. Weighs 3.7 pounds. Measures 5½ x 4½ x 6 inches..... **\$139<sup>95</sup>**

**MFJ-4245MV** (right) 45 Amps maximum or 40 Amps continuous. Weighs 5.5 pounds. Measures 7½ x 4½ x 9 inches..... **\$189<sup>95</sup>**

## MFJ 35/30 Amp Adjustable Regulated DC Power Supply

Massive 19.2 pound transformer . . . No RF hash . . . Adjustable 1 to 14 VDC . . .

MFJ's heavy duty conventional power supply is excellent for powering HF or 2 Meter/440 MHz transceiver/accessories.

A massive 19.2 pound transformer makes this power supply super heavy duty! It delivers 35 amps maximum and 30 amps continuous without even flexing its muscles. Plugs into any 110 VAC wall outlet.

It's highly regulated with load regulation better than 1%. Ripple voltage is less than 30 mV. No RF hash -- It's super clean!

Fully protected -- has over voltage protection, fold back short circuit protection and over-temperature protection.

You get front panel adjustable voltage from 1 to 14 VDC with a convenient detent set at 13.8

VDC. A pair of front-panel meters let you monitor voltage and current.

Three sets of output terminals include a pair of heavy duty five-way binding posts for HF/VHF radios, two pairs of quick-connects for accessories and a covered cigarette lighter socket for mobile accessories.

A front-panel fuse holder makes fuse replacement easy. Whisper quiet fan speed increases as load current increases -- keeps components cool. 9½" w x 6" h x 9½" d.

The MFJ-4035MV is protected by MFJ's famous No Matter What™ one year limited warranty. We will repair or replace (at MFJ option) your product for 1 full year.



**MFJ-4035MV \$139<sup>95</sup>**

## MFJ High Current Multiple DC Power Outlets

Power two HF/VHF transceivers and six or more accessories from your 12 VDC power supply



**MFJ-1118** (left) This is MFJ's most versatile and highest current Deluxe Multiple DC Power Outlet. Lets you power two HF and/or VHF transceivers and six or more accessories from your transceiver's main 12 VDC supply

Two pairs of super heavy duty 30 amp 5-way binding posts connect your transceivers. Each pair is fused and RF bypassed. Handles 35 Amps total. Six pairs of heavy duty, RF bypassed 5-way binding posts let you power your accessories. They handle 15 Amps total, are protected by a master fuse and have an ON/OFF switch with "ON" LED indicator.

Built-in 0-25 VDC voltmeter. Six feet of super



heavy duty eight gauge color-coded cable with ring tongue terminals. Binding posts are spaced for standard dual banana plugs. Heavy duty aluminum construction. 12½ x 2½ x 2½ inches... **\$69<sup>95</sup>**

## NEW! MFJ HF DC Power Outlet

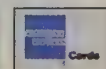
**MFJ-1117** Similar to MFJ-1118 but can power up to four different HF or VHF radios at the same time. Two 35 amp single posts, one 35 amp dual post. Super tiny 8x2x3 inches fits anywhere at your operating position. No meter, power LED, on/off switch..... **\$49<sup>95</sup>**



**MFJ-1116** (center) Similar to MFJ-1118. No 30 amp posts. Has "ON" LED and 0-25 VDC voltmeter. 15 amps total..... **\$44<sup>95</sup>**

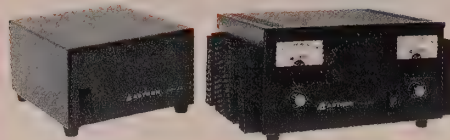
**MFJ-1112** (right) Similar to MFJ-1116. No on/off switch, LED, meter, fuse..... **\$29<sup>95</sup>**

Each has MFJ's famous No Matter What™ one year limited warranty. MFJ will repair or replace (at our option) your high current multiple DC power outlet no matter what™ for 1 year.



We accept I.M.P.A.C.® Government Credit Cards





**The alternative to costly "matching" Supplies!**

- 105-125V AC input, 13.8V DC output; internally adjustable from 11-15V • Electronic regulation with fold-back current limiting & crowbar overvoltage protection • Heavy-duty heat sink • 3-wire cord • 1-year Warranty • Made in U.S.A.

Separate volt and amp meters on RS-20M, 35M, 50M and 70M. Separate volt and amp meters, plus voltage adjustment (2-15V DC) on VS-20M, VS-35M and VS-50M. RM-35M, RM-50M and RM-60M are rack mount models.

Astron Model	Cont. Amps	ICS Amps	Size (in.) H W D	Shipping weight
RS-7A	5	7	3 3/4 x 6 1/2 x 9	9
RS-10A	7 1/2	10	4 x 7 1/2 x 10 1/2	11
RS-12A	9	12	4 1/2 x 8 x 10 1/2	13
RS-20A	16	20	5 x 9 x 10 1/2	18
RS-35A	25	35	5 x 11 x 11	27
RS-35A/220V	Same as RS-35A	but 220V input		169 <sup>95</sup>
RS-50A	37	50	6 x 13 1/2 x 12	46
RS-70A	57	70	6 x 13 1/2 x 12	48
With separate Volt & Amp meters				
RS-20M	16	20	5 x 9 x 10 1/2	18
RS-35M	25	35	5 x 11 x 11	27
RS-50M	37	50	6 x 13 1/2 x 11	46
RS-70M	57	70	6 x 13 1/2 x 12	48
Adjustable output; separate Volt & Amp meters				
VS-20ML	16	20	5 x 9 x 10 1/2	20
VS-35M	25	35	5 x 11 x 11	29
VS-50M	37	50	6 x 13 1/2 x 11	46
Rack mount models; separate Volt & Amp meters				
RM-35M	25	35	5 1/2 x 19 x 12	38
RM-50M	37	50	5 1/2 x 19 x 12	50
RM-60M	50	55	7 x 19 x 12	60

**Models with Added Features**

**RS-4L** Has a built-in cigarette lighter receptacle in the front panel. 13VDC @ 4A peak, 3 Amps continuous. 3 1/2" h x 6 1/2" w x 4 1/2" d, 6 lbs..... **\$49<sup>95</sup>**

**RS-12S** Power supply with built-in speaker. Rated 13VDC @ 12 Amps peak & 9 Amps continuous. 4 1/2" h x 8" w x 9" d, 13 lbs..... **\$89<sup>95</sup>**

**Lightweight Switching Power Supplies**

**SS-25** 12V DC, rated 20 Amps continuous, 25 Amps ICS. 3" h x 7" w x 9 1/2" d, 4.2 lbs..... **\$109<sup>95</sup>**

**SS-25M** As above, with volt/amp meters... **\$129<sup>95</sup>**

**SS-30** 12V DC, rated 25 Amps continuous, 30 Amps ICS. 3 1/2" h x 7" w x 9 1/2" d, 4 lbs, 8 oz... **\$119<sup>95</sup>**

**SS-30M** As above, with volt/amp meters... **\$139<sup>95</sup>**

**Power Inverters**

**General Purpose**

**12/115** Converts 12V DC to 115VAC @ 60 Hz. Provides convenient AC house current in your boat, car, truck, camper, etc. Powers your ham rig, small household appliances, TV, tools, radios & lights up to 200W contin., w/peaks up to 240W & overload protected. Note: This unit produces square wave output, not recommended for devices where high transients are not tolerable. 4 1/2" h x 8" w x 9" d, 9 lbs **\$69<sup>95</sup>**

**28V Aircraft**

**N2412** Converts 22 to 32V DC input to 13.8V DC output @ 9 amps. Eliminates tapping into a 28V battery for 12V power..... **\$49<sup>95</sup>**

**N2412-20** As above, but rated at 16 Amps.. **\$79<sup>95</sup>**



**DM-340MVT Power Supply**

Input: 120V AC 50/60Hz

Output: 13.8V DC (0-15V adjustable)

Rated: 30A Cont./35A Max.

Voltage Regulation: Under 2%

Ripple Volt.: Under 30mVp-p

Protection: Automatic Shutdown over 35A

- Volt & amp meters • Cooling fan • Binding posts
- Quick-connects • Cigar lighter socket • 6" w x 6" h x 9" d, 19 lbs..... **\$179<sup>95</sup>**



**Variable Power Supplies**

**RP-150** 20 Amp Power Supply with the following features:

- 13.8V DC @ 20 amps continuous • Adjustable voltage 2V to 15V DC • Internal cooling fan
- Large, lighted volt and amp meters • Cigarette lighter socket with cap • Binding posts on front and rear • Ripple less than 3.1mV peak to peak
- 8 1/2" w x 4 1/2" h x 7 1/2" d, 14 lbs..... **\$159<sup>95</sup>**

**RP-300** 30 Amp Power Supply, same as RP-150 but:

- 30 Amps continuous • Binding Posts & spring loaded Dual Terminals on front • Detachable power cord • 10 1/2" w x 5" h x 11" d, 24 lbs..... **\$239<sup>95</sup>**



**Power Supplies**

*Powerful Values for Ham Operators*



105-125V AC INPUT, 13.8 VDC output; perfect for all your Ham radio equipment. A wide selection, including most popular sizes, rugged construction and low prices.

- Solid state, integrated circuitry
- Current-limiting foldback for complete over current protection
- Crowbar Overvoltage protection on 15 amp and larger models
- High quality filtering for very low ripple and low noise, metal cases on all models
- Regulated, output 95% of no-load value

Model	Cont. amps	ICS	Size (in.)	Wt.	Price
PR-7	5	7	3 3/4 x 6 1/2 x 7 1/2	7	\$49 <sup>95</sup>
PR-10	7.5	10	4 1/2 x 6 x 7 1/2	10	69 <sup>95</sup>
PR-12	9	12	4 1/2 x 6 x 7 1/2	11	74 <sup>95</sup>
PR-20	16	20	4 1/2 x 6 x 7 1/2	15	99 <sup>95</sup>
PR-30	24	30	6 x 6 x 10 1/2	23	129 <sup>95</sup>
PR-40	32	40	6 x 10 x 11 1/2	27	169 <sup>95</sup>
PR-50	37	50	6 x 10 x 11 1/2	30	199 <sup>95</sup>
PR-60	48	60	6 x 10 x 11 1/2	33	239 <sup>95</sup>

**PowerVerter® Ultra Compact Inverters**

- Converts vehicle battery power to clean, safe and efficient AC power • Ultra compact design • Choice of 140w or 300w models
- Plugs into vehicle cigarette-lighter socket.



These Low Cost DC to AC Inverters give you access to AC power wherever you need it. Harnessing the 12-volt battery power of your automobile, boat, RV or service truck, they let you use power tools at an out-of-the-way work site, household appliances at a campsite, or office equipment on the road

Features: Electronic Circuit Protection • Low Battery Alarm & Shutdown • Illuminated On/Off Switch Cigarette Lighter Plug • Metal Housing • Built-in High-Speed Cooling Fan (PV-300)

**SPECIFICATIONS**

	PV-140	PV-300
Maximum Continuous Power	140W	300W
Surge Capacity (Peak Power)	200W	500W
Wave Form	Modified Sine Wave	
AC Receptacles	1	2
Size (L x W x D inches)	6x3x1 1/2	6x4x1 1/2
Weight	1 lb, 4oz	2 lbs
Price	\$49 <sup>95</sup>	\$74 <sup>95</sup>

**MFJ Mighty lite™**

**Switching Power Supplies**

- Super small & lightweight • Volt/Amp meters
- Front panel voltage control (0-15V) • Five-way binding posts & cig. lighter socket • 2 sets of quick-connects on rear panel • Large 3" dual illum. meters
- Over voltage & current protection • Cooling fan
- Fused, switchable AC input (85-135V & 170-260V)



**4225MV**

22 Amps continuous

25 Amps max. - 3.7 lbs

5 1/2" w x 4 1/2" h x 6" d

**\$139<sup>95</sup>**



**4245MV**

40 Amps continuous

45 Amps max. - 5.5 lbs

7 1/2" w x 4 1/2" h x 6" d

**\$189<sup>95</sup>**

**4035MV Heavy-duty Conventional Power Supply**

Massive Transformer delivers 35 Amps max. & 30Amps cont. • Front panel adjust.

voltage • Dual lighted volt/amp meters • 3 sets of output terminals incl. a pair of heavy duty 5-way binding posts & cig. lighter socket • Internal cooling fan - speed increases as load current increases • Over voltage, fold back short circuit protect. & over-temp. protect. • 9 1/2" w x 6" h x 9 1/2" d, 19.2 lbs..... **\$139<sup>95</sup>**



**AIM Small Power Supplies**

**38-384** Light Duty DC

Power Supply Input: 115V

AC. Output: 13.8V DC regulated

@ 4A Front panel binding posts, LED "ON" indicator, fuse protection. 7 1/2" d x

4 1/2" w x 3" h, 5 1/2 lbs... **\$39<sup>95</sup>**



**38-305** AC Adapter Provides multiple low-voltage DC to operate various battery powered equipment requiring 3, 4.5, 6, 7.5, 9 or 12V DC @ 500ma. Multiple application plugs and 9V snaps fit most devices. **\$9<sup>95</sup>**

**38-312** Regulated AC Adapter Multi-volt. w/multiple plugs and 9V snaps. 1.5, 3, 4.5, 6, 7.5, 9 or 12V DC regulated @ 1200ma. to operate a range of batt. oper. devices **\$29<sup>95</sup>**



**DIAMOND ANTENNA**

*Loaded with features*

**GZV-4000** Switching

Mode DC Power Supply w/

Speaker 120V AC input • Vari. output: 5-15V DC w/center detent at 13.5V DC • 40 amp contin. rating, 100% duty cycle • Over temp., overload, short-circuit protection w/current foldback at approx. 42 amps • Overload indicator • Selectable monitor of voltage & current • DC terminals & cig. lighter jack • Filtered AC line • 8 1/4" x 13" x 4 1/2"; 8 lbs... **\$199<sup>95</sup>**



**HI-Q Common-Mode™**

Filters Regular lowpass fil-

ters eliminate harmonic-type interfer. but are not capable of filtering out "Common-Mode" (differential) noise (energy transfer between transmitter & ground incl. stray capacitance). For tough RFI problems & cleaner signals, add an RF Inquiry filter.

**CF250E-UHF**..... **\$89<sup>95</sup>**

**CF5KV-UHF**..... **\$124<sup>95</sup>**

Operating Frequency...1.8-70MHz Impedance..... 50Ω

Common Mode Attenuation-50 to Connectors.....SO-239 teflon

-60db Below 250MHz) Size..... CF250E 25dia. x 255mm

Power Rating..... CF250E 250W CF5KV 54dia. x 300mm

CF5KV 5,000W Weight..... CF250E 0.5 lb.

Insertion Loss.... Less than 0.1dB CF5KV 1.3 lb.



## INTERMOD FILTERS

### PAR ELECTRONICS



Solve most intermod or front end overload problems from paging systems with these small, asymmetrical, 45 to 54dB Notch Filters. The design is centered on the offending pager spectrum of 152 to 153 MHz and works effectively with a loss of 0.5 dB or less and a 1.25:1 VSWR. Works with dual-band (2m/70cm) transceivers providing low-loss pass-thru of 70cm signals.

**VHF/DN152** 2m base or mobile intermod filter, SO-239 connectors, 50W, 2" h x 1" d x 2 1/2" w ..... **\$62<sup>95</sup>**

**VHFTN152-158** Triple Cavity. Similar to VHF/DN152 except it places a second notch in the 158MHz pager band in addition to the dual notch in the 152 MHz pager band. 2 1/2" h x 1" d x 3" w .. **\$82<sup>95</sup>**

**VHFDN152HT** 2m Intermod filter for handhelds BNC connectors, 20W. 1 1/2" h x 3/4" d x 2" w ..... **\$68<sup>95</sup>**

**UHF/DN450** UHF Intermod filter for base or mobile. Blocks pagers/two way transmitters that cause 70cm intermod; transparent to 2 meters ..... **\$62<sup>95</sup>**

**UHF-12** 12" Belden RG-58/U jumper cable with silver/gold/teflon PL-259's on each end ..... **\$9<sup>95</sup>**

### MFJ

MFJ ENTERPRISES, INC.

#### IntermodFighter™

Eliminate intermod in your 2M HT or mobile station. Three high-Q bandpass filters and two L-sections give razor sharp selectivity to knock out interfering signals below & above 2m.

**MFJ-713** Has BNC connectors for use HTs. Self-contained, and uses a 9-volt battery. To eliminate intermod, remove the rubber duck and replace it with the MFJ-713. Re-install the duck - no more intermod! RF tight, rugged aluminum case ..... **\$59<sup>95</sup>**

**MFJ-714** For mobile transceivers, SO-239 connectors. Installs between rig & ant. Uses 12V DC. **\$59<sup>95</sup>**

**MFJ-704** 50Ω Low Pass Filter Installs between HF transmitter and antenna. Reduces TVI from harmonics that fall in the TV band. 1kw from 1.8 to 30MHz, 3" w x 3" h x 9" d ..... **\$39<sup>95</sup>**

**MFJ-711** 75Ω High Pass Filter Installs at TV or VCR antenna input. Reduces or eliminates interference from HF transmitters operating below 30MHz ..... **\$19<sup>95</sup>**

### NYE VIKING

#### Low Pass Filter

Install between transmitter and antenna to eliminate TVI caused by harmonics from 1.8-30MHz transmitters. Rated 2KW, 5KW SSB peak. Over -65dB attenuation above 57MHz. SO-239 connectors ..... **020-001 \$72<sup>95</sup>**

### VECTRONICS

#### LP-30 Low Pass Filter

Suppress TV interference from HF transmitters. Use between transmitter and antenna or tuner. Up to -70dB attenuation of harmonics falling in TV bands. For 52Ω, up to 30MHz and 1500W RF continuous power ..... **\$49<sup>95</sup>**

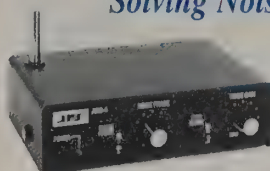
**LP-2500** Rated for 2.5KW continuous ..... **\$79<sup>95</sup>**

**HPF-1** High Pass Filter Install at TV antenna terminals stop interference caused by overload and harmonics from HF transmitters operating below 30MHz. High harmonic attenuation but low loss in 52 to 550MHz TV pass-band. For 300Ω, but baluns and Type F connector supplied for 75Ω ..... **\$19<sup>95</sup>**



JPS Communications, Inc.

## Solving Noise Problems with Digital Signal Processing!

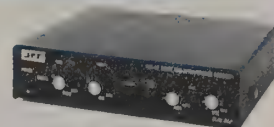


### Antenna Noise Canceller

**ANC-4** Installs between the antenna and receiver. Usable between 100 kHz and 80 MHz. Eliminates local POWER LINE noise before it enters the receiver to let you hear signals you didn't know were there. Two front panel adjustments, PHASE and GAIN, reduces locally-generated noise typically by 50 dB. Short whip and wire noise pick-up antennas supplied with each unit. Rear panel connector for external noise probe. Automatic transmit switch over, handles up to 250W, has internal selectable delay time. Europe CE certified. 12V DC @ 300 mA. 1 3/4" h x 6" w x 4 3/4" d, 2 lbs. **\$189<sup>95</sup>**

**Power Pack** 115V AC adapter for JPS units... **\$16<sup>95</sup>**

### Noise/Interference Reducer & Filter Unit



**NIR-12** Features two 40MHz DSPs to provide most powerful & advanced DSP Noise Reduction Unit available. Unparalleled performance, super-selective FIR filters, fully adjustable filter center freq. & bandwidth (3400Hz-50Hz); both Dynamic Peaking AND Spectral Subtraction Noise Reduction; spectral multi-tone NOTCH filter. All modes & functions may be used simultaneously. Use on all modes, including AMTOR & PACTOR. Installs between the receiver audio output and external speaker. Europe CE certified. 12V DC @ 1A. 1 1/4" h x 6 1/2" w x 7 1/4" d, 4 lbs ..... **\$349<sup>95</sup>**

**SDK-12** Software Development Kit. Interface module & software for programming of the NIR-12 DSP chips via the serial data bus on your PC ..... **\$35<sup>95</sup>**

## K-COM Telephone RF Interference Filters



**Stops telephone RFI caused by 3 to 30MHz transmitters! ...**

Cure telephone RF interference in the most irritating cases even when dealing with transmitters with full legal power output. Use any number of filters with no adverse effect on telephone performance. Fully assembled, with complete installation instructions.

**RF-1** For single line equipment including wired and cordless telephones, answering and fax machines, modems, etc. Standard modular connectors. **\$16<sup>95</sup>**

**RF-1/2-line** Correct filter for two-line telephone sets & multi-line, multi-station electronic key phone systems in business environments ..... **\$22<sup>95</sup>**

**RF-1/coiled** For use when RFI enters thru coiled telephone cord between base & handset ..... **\$22<sup>95</sup>**

**RF-2** Hard-wired, provides a wide range of installation opt. to add RFI rejection at a variety of physical & electrical locations in the system wiring. Inside jacks, behind wall mounts, security systems. **\$10<sup>95</sup>**

## Oak Bay Technologies

### LP-11P Commercial Grade Low Pass Filter

Installs in the transmission line between transmitter and power amplifier or tuner. Eliminates TVI by filtering out transmitter generated harmonics that could fall w/in the TV bands. Eleven pole Inverse Chebyshev filter design operates from 1.8 thru 30MHz with less than 0.5dB insertion loss, an upper cutoff freq. of 41MHz & 80dB of ultimate attenuation. Maxi. power handling is 1000W. **\$69<sup>95</sup>**

**LP-50** Low Pass Filter for 1.8 thru 54MHz ... **\$69<sup>95</sup>**



### High Pass Filters

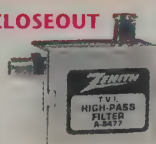
Stop TV, FM & VCR interference caused by harmonics or overload from HF amateur radio transmissions, etc. Installs at TV or VCR antenna terminal or connector. Sharp frequency cutoff at 52MHz with 70dB attenuation below 50MHz.

**HP-300T** (300Ω) or **HP-75T** (75Ω) .....ea. **\$12<sup>95</sup>**

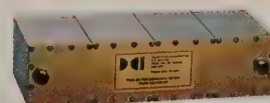
### ZENITH High Pass Filter

Install at TV set & attach antenna lead. Eliminates interference coming from 6-160M transmitters. >45dB attenuation @ 52MHz & lower. For 75Ω systems, type-F connectors. 2" x 1 1/4" x 1" ....A-8477 **\$9<sup>95</sup>**

### CLOSEOUT



DCI DIGITAL COMMUNICATIONS



### Bandpass Filters

Install between your 2m, 220 or 440MHz rig and antenna to reduce strength of out-of-band interfering signals while allowing signals you want to hear pass through at full strength.

- Eliminate random squeals, squawks, beeps & strange voices from your VHF radio caused by Intermod from strong, nearby pagers, police radio, etc.
- Hear desired signals even in crowded urban centers with high-powered commercial systems.
- Design: (2M/220MHz) (4) helical resonators with aperture coupling, (440MHz) (4) 1/4-wave linear resonators with aperture coupling VSWR 1.5:1 - rated at 200W.
- Also reduces spurious emissions on transmit.
- Made of extruded aluminum, copper and brass. 12w"x 3"h x 5"d, 2 lb, 11oz

**146-4H** Passband: 144-148; Loss <1 dB; Selectivity: -57dB @ 136MHz & -43dB @ 156MHz; SO-239 silver-teflon connectors ..... **\$89<sup>95</sup>**

**145-2H** - Passband 144 to 146 MHz ..... **\$89<sup>95</sup>**

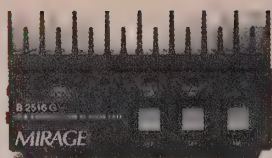
**223.5-3H** - Passband: 222 to 225MHz; Loss 1 dB; Selectivity: -33dB at 233 3MHz and -28dB at 233 MHz; SO-239 silver-teflon connectors ..... **\$89<sup>95</sup>**

**445-10C** - Passband: 440 to 450MHz; Loss 1 dB; Typical selectivity: -47dB at 425MHz & -50dB at 456 MHz; Type-N silver-teflon-gold connectors. **\$109<sup>95</sup>**

**435-10C** - Passband 430 to 440MHz ..... **\$109<sup>95</sup>**

Upgrade to type-N connectors on 2m and 220MHz models - add \$10 to price; Special Order





## MIRAGE VHF/UHF AMPLIFIERS

Add a MIRAGE amplifier to your rig for 30 to 600 watts of BRUTE POWER! Models for 6 meters through 70 cm - Base, Mobile, Repeater or ATV operation.

- 12V DC • FM/SSB/CW modes • Continuous duty
- 20dB GaAsFET preamp • Overdrive & High-temp protection • Remote control capability

Model	MHz	Max Input	Max out amps	preamp
A-1015G	50-52	1-15W	150W	23 yes
B-34	144-148	8W	35W	4 no
B-34G	144-148	8W	35W	4 yes
B-55G	144-148	10W	50W	5 no
B-215G	144-148	0.25-5W	150W	20 yes
B-1016G	144-148	0.2-15W	160W	25 yes
B-1030G	144-148	10W	300W	48 yes
B-2516G	144-148	20-35W	160W	25 yes
B-2530G	144-148	10-35W	300W	48 yes
B-5016G	144-148	20-60W	160W	22 yes
B-5030G	144-148	0.5-50W	300W	48 yes
B-310G	144-148	0.25-8W	100W	15 yes
B-320G	144-148	2.5-50W	200W	25 yes
B-510G	144-148	2.5-50W	100W	15 no
BD-35	144/440	1-7W	45/35W	7 no
C-22G	222-225	2W	20W	5 yes
C-211G	222-225	2W	110W	20 yes
C-106G	222-225	10W	60W	12 yes
C-1012G	222-225	10W	120W	5 yes
C-1022G	222-225	10W	220W	20* yes
C-2512G	222-225	30W	120W	20 yes
C-2522G	222-225	30W	200W	42 yes
C-5022G	222-225	50W	200W	42 yes
D-15N	425-450	2W	15W	3 no
D-26N	430-450	2W	60W	12 no
D-1010N	430-450	10W	100W	15 no
D-3010N	430-450	30W	100W	20 no
D-1010ATVN	430ATV	10W	100W	20 no

\*at 28VDC N denotes Type-N connectors

**RC-1 Remote Control Head** For most Mirage amps. Controls: Power & preamp On/Off, SSB/FM mode switch. 18' cable. 1 1/4" x 3 3/4" x 2 1/2" ..... **\$45<sup>95</sup>**

## Docking Boosters

Slide your handheld into a Mirage docking booster and your HT instantly becomes a powerful mobile or base!

- Boost your RF power to mobile or base station levels, up to 50W
- Replace your HT battery
- Becomes a secure and convenient HT holder

Mirage docking boosters have selectable HT voltages that let you use most handhelds old or new. Requires 13.8 VDC. You can place it on your dashboard or table or mount it securely with its mounting bracket and tilt it for convenient operation.

**B-24-G** For 2m FM handhelds. Delivers up to 50W output with just 0.5 to 8W input. Has 18dB GaAsFET preamp with on/off switch. Preamp On, On Air, and Transmit LEDs. Compact - 3 1/4" x 3 3/4" x 4 1/4". Choose adapter to fit your handheld\* **\$114<sup>95</sup>**

**BD-25** For dual band FM HTs. Delivers up to 45W on 2M & 35W on 440MHz with only 0.5-8W input. Mirage's *FullDuplexAMP™* lets you talk on one band & listen on the other band at the same time. Requires compatible HT. Automatic band selection. Frequency Band and Power On LEDs. Reverse polarity protection, On/Off switch. 3 1/4" x 3 3/4" x 5 1/4". Choose an adapter to fit your handheld\* **\$164<sup>95</sup>**

\* See Mirage in the Price List for HT adapters, and also a listing of Mirage Repeater Amplifiers.



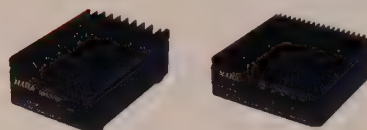
## MAHA

### DOCKING BOOSTERS

With the appropriate adapter, you can slide on & boost your ICOM, KENWOOD or YAESU handheld radio up to 50W. Forget about the battery pack, the booster will power the HT at 5W. Also works with ADI & RADIO SHACK HTX-202.



- MH-A301** • 2m FM, 5W in/50W out, 18dB GaAsFET preamplifier ..... **\$115<sup>95</sup>**
- MH-A302** • Dual Bander -2m 5W in/45W out; 440MHz, 5W in/35W out..... **\$165<sup>95</sup>**



### HT AMPLIFIERS

- MH-A101** • 2m FM, 5W in/35W out..... **\$69<sup>95</sup>**
- MH-A102** • 2m FM/SSB, 5W in/35W out, 15dB GaAsFET preamplifier..... **\$89<sup>95</sup>**
- MH-A103** • 2m FM/SSB, 5W in/50W out, 15dB GaAsFET preamplifier ..... **\$119<sup>95</sup>**
- MH-A104** • 2m FM/SSB, 5W in/100W out, 15dB GaAsFET preamp, adjustable..... **\$229<sup>95</sup>**
- MH-A201** • Dual Bander - 2m 5W in/45W out; 440MHz 5W in/35W out ..... **\$159<sup>95</sup>**



## YAESU QUADRA SYSTEM HF & 6M

**SPECIAL \$3999<sup>95</sup>**

- Amateur Band Coverage: 160-15 & 6 meters
- 1000W Power Out @ 220V AC
- 500W on 6-meters
- (8) MRF150 Power MOS FETs
- Multi-function Omni-Glow LCD Display
- Automatic System Monitoring with VSWR Protection
- Built-in High-Speed Antenna Tuner
- (2) RF inputs • (4) RF outputs
- Automatic Bandswitching with Yaesu's FT-1000D, FT-1000MP, FT-920 & FT-900
- (2) input voltages: 117VAC for 500W; 220V AC for 1000W
- Separate Amplifier and Power Supply Units
- Size: (each) 16 1/2" x 5 1/2" x 16 1/2"
- Weight: (Amp) 33 lbs; (Power Supply) 26 lbs



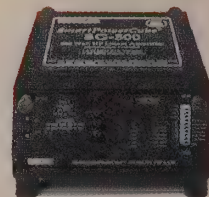
**PW-1** HF/50MHz All Band Solid State Linear amplifier. 100W of drive delivers 1KW PEP SSB and 1KW CW/RTTY output (100% duty cycle). Automatic band change. Built-in automatic antenna tuner for all amateur bands including 6 meters. Wide ALC adjustable range allows use with almost any rig. Removable control head, full break-in CW oper. Built-in 110/220VAC supply w/auto. input voltage selector. 14"w x 10"h x 14"d, 56 lbs..... **\$4999<sup>95</sup>**

## SGC

### SG-500

#### SmartPowerCube™

A fully automatic band switching, microprocessor controlled HF linear amplifier. Covers 1.6-24MHz, ideal for fixed, mobile, and marine operation. Nearly indestructible! Cast-alum. enclosure, extra heavy duty heat sinks, powder coat finish and durable electronic components. 500W PEP output with 50-90W input; CW rating 500W output for 10 minutes, or unlimited with optional fan. 10-18 VDC @ 40A average (SSB), 90A peak, or CW. 6"h x 12 1/2"d x 11 1/2"w, 21 lbs ..... **\$2-96 \$999<sup>95</sup>**



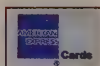
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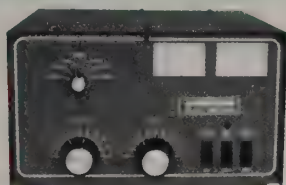


# AMERITRON AMPLIFIERS

Ameritron AL-811 amplifiers... a world-wide reputation for legendary quality, flawless performance & proven reliability

**AL-811H**  
\$749<sup>95</sup>

**AL-811**  
\$599<sup>95</sup>



## AMERITRON HF Linear Amps with 811A Tubes

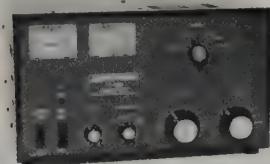
Only the Ameritron AL-811H gives you four fully neutralized 811A transmitting tubes. You get absolute stability and superb performance on higher bands that can't be matched by un-neutralized tubes. Delivers 800 watts PEP, 600 watts CW output

Ameritron mounts the 811A tubes vertically – not horizontally – prevents hot tube elements from sagging and shorting out. Mounting, using potentially damaging horizontal mounting, require special 811As to retard sagging/shorting.

A quiet, powerful computer grade blower draws in plenty of cool air. It pressurizes the cabinet and efficiently cools your 811A tubes. Our air flow is so quiet, you'll hardly know it's there – unlike noisy, poorly chosen blowers.

You also get efficient full size heavy-duty tank coils, full ht. computer grade capacitors, heavy-duty high silicon core power transformer, slug tuned input coils, operate/standby switch, transmit LED, ALC, dual meters, QSK compatibility w/QSK-5 plus more!

Model AL-800 uses three 811A tubes and delivers 600 watts PEP, 500 watts CW or 400 watts continuous output.



**AL-80B**  
\$1199<sup>95</sup>

## Desktop Kilowatt Amplifier with 3-500ZG Graphite tube

Full kilowatt PEP output from a whisper quiet compact desktop linear. Only 8 1/2 x 14 x 15 1/2 inches. Plugs into nearest 120 VAC outlet. All bands 160-15 Meters, 1000 Watts out on SSB, 850 Watts out on CW, genuine Amperex 3-500ZG tube has graphite plate, nearly 70% efficiency, inrush current protection, multi-voltage transformer.



ALS-500M



ALS-600

## Ameritron ALS-500 Mobile no tune State Amp has 500 watts output and covers 1.5-22 MHz

Ideal mobile amplifier uses 13.8 Vdc mobile electrical system, very compact – only 3 1/2 x 9 x 15 inches, extremely quiet, 500 W output, 1.5-22 MHz coverage, instant bandswitching, no tuning, no warm up, no tubes, SWR protected..... \$699<sup>95</sup>

## Ameritron ALS-600 no tune Solid State base amp includes heavy duty power supply, delivers 600 Watts output

No tuning, no fuss, no worries – just turn it on and operate. Includes AC power supply, 600 W output, continuous 1.5-22 MHz coverage, instant bandswitching, fully SWR protected, extremely quiet, very compact. Amplifier is 6 x 9 1/2 x 12"..... \$1129<sup>95</sup>



**AL-800H**  
\$2199<sup>95</sup>

**AL-800**  
\$1529<sup>95</sup>

## AMERITRON HF Linear Amps with the Eimac™ 3CX800A7

Ameritron's new 800/H amplifiers cover 160-15 Meters including WARC bands. The AL-800 has a single Eimac® 3CX800A7 tube and produces 1250 Watts PEP. Model AL-800H has two 3CX800A7s giving 1500 watts plus.

Both amps have an adjustable slug tuned input circuit, grid protection, ALC control that is front panel adjustable, vernier reduction drives, heavy duty 32 lb. grain oriented silicone steel core transformers & high capacitance computer grade filter capacitors.

These amplifiers have multi-voltage operation (14 user selectable AC line voltage from 90-140; 200-250 VAC), quiet pressurized ventilation systems, dual illuminated Cross-Needle meters that read peak forward and reflected power, SWR, high voltage, grid current and plate current.

Vernier reduction drives make tuning adjustments smooth & easy. Ameritron's exclusive Step-Start Inrush Protection™ stops damage to your amplifier from inrush current. Amps feature an attractive Lexan front panel decal & superior, all metal construction – it's built to last! Ultra compact desktop size is perfect for your operating station. 8 1/2 x 16 1/2 x 14 1/2".

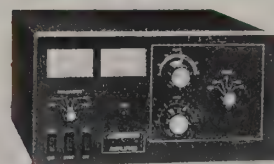


**AL-572**  
\$1299<sup>95</sup>

## Near Legal Limit™

New class of Near Legal Limit™ amplifier gives you 1300 Watt PEP SSB power output for 65% of price of full legal limit amps! Four rugged Svetlana Russian 572B tubes. Instant 3-second warm-up. Plugs into 120 VAC. Compact 8 1/2 x 15 1/2 x 14 1/2 inches. Covers 160 to 15 meters, delivering 1000 watts CW output. Tuned input, instantaneous RF Bias, dynamic ALC, parasitic killer, inrush protection, two lighted Cross-Needle meters, multi-voltage transformer.

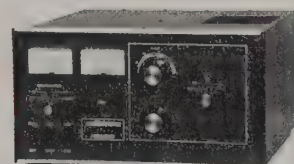
AMERITRON offers the best selection of legal limit amplifiers



**AL-1500**  
\$2469<sup>95</sup>

## Ameritron's most powerful Linear... single 3CX-1500/8887

Herculean Eimac® 8877 ceramic tube. It's so powerful that 65 watts drive gives you the full legal output – and it's just loafing because the power supply is capable of 2500 Watts PEP.



**AL-1200**  
\$1999<sup>95</sup>

## Single 3CX1200A7 linear Amp

Get ham radio's toughest tube with the Ameritron AL-1200 – the Eimac® 3CX1200A7. It has a 50 watt control grid dissipation. What makes the Ameritron stand out from other legal limit amplifiers? The answer: A super heavy duty power supply that loafs at full legal power – it can deliver the power of more than 2500 watts PEP two tone output for a half hour.



**AL-82**  
\$1999<sup>95</sup>

## Dual 3-500ZG linear

This linear gives you full legal output using a pair of 3-500s. Most competing linears using 3-500s can't give you 1500 Watts because their lightweight power supplies can't use these tubes to their full potential.

AMERITRON's legal limit amps are 18 1/2 x 17 x 10 inches and weigh approx. 77 lbs. All use a super heavy duty Hypersil® power transformer capable of 2500 watts!



ATP-100

ADL-2500

ADL-1500

QSK-5

ICP-120/240

AWM-30

ATR-30

**ATP-100** Tuning Pulser safely tunes an amp Prevents overheating, tube damage, power supply stress & component failure \$49<sup>95</sup>

**ADL-2500** Fan cooled 2500 W dry dummy load Quiet fan. 2500 Watts average power for 1 min. on, 10 off. 300W cont. SWR below 1.4 ..... \$189<sup>95</sup>

**ADL-1500** Dummy Load with container and oil Oil cooled 50 Ohm dummy load handles 1500 Watts for 5 mins. SWR under 1.2 up to 30 MHz. Low SWR to 400 MHz ..... \$59<sup>95</sup>

**QSK-5** Pin diode transmit receive Switch Connects externally to most HF amps. Handles 2.5 kW PEP, 2 KW CW. 6X faster than vacuum relay..... \$329<sup>95</sup>

**ICP-120/240** In-rush current protectors Stops power-up inrush current. Absorbs momentary high-voltage spikes to an amp. ICP-120 for 110-120V; ICP-240 for 220-240V .....ea. \$79<sup>95</sup>

**AWM-30** Precision SWR Wattmeter Gives true active peak/average readings. Lighted cross-needle meter. 3000/300 Watt ranges ..... \$139<sup>95</sup>

**ATR-30** True Legal Limit Antenna Tuner True high power even on 160M where most others fail. Edge wound, silver-plated AirCore™ inductor..... \$549<sup>95</sup>

**RCS-8V** Remote Coax Switch Replace 5 coax feedlines with a single coax. 1.2 SWR at 250 MHz. Useable to 450 MHz. 1 kW at 150 MHz... \$139<sup>95</sup> **RCS-4** 4 position remote switch..... \$129<sup>95</sup>



RCS-4



ARB-702

**ARB-702** Amp-to-radio interface Protects costly transceivers from damage by keying line transients, steady state current & excessive voltages. For Icom, Kenwood or Yaesu .....ea. \$39<sup>95</sup>

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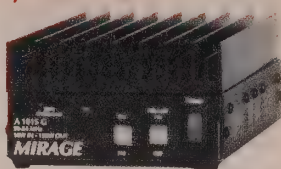


# MIRAGE

Turn your mobile, base or handheld into a 160 Watt powerhouse and talk further, longer, clearer . . . All modes: FM, SSB, CW . . . GaAsFET preamp . . .

The MIRAGE B-5016-G gives you 160 Watts of brute power for 50 Watts input on all modes -- **FM, SSB or CW!**

**B-5016G**  
\$269<sup>95</sup>



## 35 Watts for 2 Meter HTs

**B-34G**  
(bottom)  
\$89<sup>95</sup>



- 35 Watts out - 2M • All Modes: FM, SSB, CW
  - 18 dB GaAsFET preamp
  - Reverse Polarity protect • Works w/HTs to 8 W
- B-34** 35W, FM only, less preamp... \$69<sup>95</sup>

## 100 Watts for 2 Meter HTs

**B-310G**  
\$179<sup>95</sup>



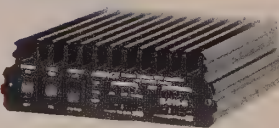
### Power Curve - typical B-310-G output power

Watts Out	25	50	75	95	100	100	100+	100+
Watts In	1/4	1/2	1	2	4	6	7	8

- 100 Watts out with all handhelds up to 8 Watts
- All modes: FM, SSB, CW
- Legendary MIRAGE Ruggedness
- 15 dB GaAsFET preamp
- Reverse Polarity Protection/SWR Protection

## 100 Watts Adjustable - HT or mobile

**B-510G**  
\$209<sup>95</sup>



Use any 2 Meter HT or mobile up to 50 Watts and get the same 100 Watt power output.

## Low noise GaAsFET preamps

High gain ultra low noise GaAsFET preamps for improving the reception of weak weak signals.

Selectable gain prevents receiver overload and intermodulation. 15 to 22 dB gain. Less than 0.8 dB Noise Figure. Automatic RF switching up to 100 Watts.

Choose *In-Shack* model or *Mast-Mount* model to reduce loss. Rugged die-cast enclosures.



- KP-1/10M** 28-30MHz; in-shack model ..... \$129<sup>95</sup>
- KP-1/6M** 50-54MHz; in-shack model..... \$129<sup>95</sup>
- KP-1/2M** 144-148MHz; in-shack model..... \$129<sup>95</sup>
- KP-1/220** 220-225MHz; in-shack model ..... \$129<sup>95</sup>
- KP-1/440** 430-450MHz; in-shack model .... \$129<sup>95</sup>

- KP-2/10M** 28-30MHz; mast-mount ..... \$179<sup>95</sup>
- KP-2/6M** 50-54MHz; mast-mount..... \$179<sup>95</sup>
- KP-2/2M** 144-148MHz; mast-mount..... \$179<sup>95</sup>
- KP-2/220** 220-225MHz; mast-mount ..... \$179<sup>95</sup>
- KP-2/440** 430-450MHz; mast-mount ..... \$179<sup>95</sup>

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## 144/440 MHz Amp 45/35 Watt Dual Band

**BD-35**  
\$149<sup>95</sup>



### Power Curve - typical BD-35 output power

Watts Out (2 Meters)	30	40	45	45+	45+	45+	45+	45+
Watts Out (440 MHz)	16	26	32	35+	35+	35+	35+	35+
Watts In	1	2	3	4	5	6	7	8

- Works with all FM handhelds up to 7 Watts
- 45 Watts on 2 Meters/35 Watts on 440 MHz
- Auto Band Selection • Full Duplex Operation
- Single connector for dual band radios
- Reverse polarity protection
- Auto T/R Switch • "On Air" LEDs
- 5 x 1 1/2 x 5 inches • FREE mobile bracket

## 6 Meter Amplifier

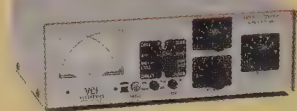
**A-1015G**  
\$349<sup>95</sup>



FCC Type Accepted - The A-1015G is the world's most popular all mode 50-52MHz FM/SSB/CW 6M amp. Built-in switchable receive preamp. 150 Watts out for 10 Watts in. For 1 to 15 Watt transceivers.

## VECTRONICS

... the finest amateur radio products made!



**VC-300DLP**  
\$149<sup>95</sup>

## World's most versatile 300 Watt Antenna Tuner

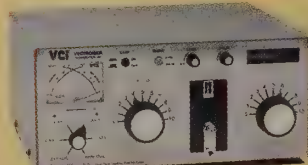
You'll get everything you've ever wanted: • precise inductance control that rivals roller inductors • the ability to match any real antenna • full 1.8-30 MHz coverage • peak reading backlit Cross-Needle Meter • 8-position antenna switch • built-in 50Ω dummy load • finest components around and world class quality.

### More Fine Vectronics Amateur Products

- AT-100** Tuned Active SWL Antenna..... \$79<sup>95</sup>
- CK-200** Deluxe CW Keyer w/Curtis chip..... \$79<sup>95</sup>
- DL-300M** 300 Watt Dry Dummy Load..... \$34<sup>95</sup>
- DL-650M** 1500 Watt Dry Dummy Load..... \$64<sup>95</sup>
- DL-2500** 2500 W Dry DL w/cooling fan ..... \$179<sup>95</sup>
- VC-300M** 300 Watt Mobile Tuner..... \$99<sup>95</sup>
- VC-300D** 300 Watt Tuner w/digital graph... \$179<sup>95</sup>
- HPF-1** High Pass TVI filter 52-550 MHz..... \$19<sup>95</sup>
- HPF-2** Deluxe high pass TVI filter..... \$24<sup>95</sup>
- PM-30HF** 1.8-60 MHz SWR/Wattmeter ..... \$79<sup>95</sup>
- PM-30UV** 144/220/440 MHz SWR/Wtmtr..... \$89<sup>95</sup>
- LP-30** Low Pass filter, handles 1500 Watts.... \$49<sup>95</sup>
- LP-2500** Low Pass Filter, 2500 Watts ..... \$79<sup>95</sup>
- PS-30F** 25 amp power supply, 30A surge .... \$129<sup>95</sup>
- PS-50F** 35 amp power supply, 50A surge ..... \$199<sup>95</sup>

See p. 24 in the Price Guide for a list of Vectronics Electronic Kits

## Legal Limit Roller Inductor Antenna Tuner with SSB Digital Bar Graph



**HFT-1500**  
\$399<sup>95</sup>

The HFT-1500 has three continuously variable components -- two 4.5 kV capacitors and a roller inductor controlled by a precision crafted crank handle and a gear-driven 5-digit counter. Tune any antenna 1.8-30 MHz, lighted D'Arsonval Cross-Needle SWR/Wattmeter, 28uH roller inductor, 4:1 2.5 kW balun and 20 segment SSB Bargraph display.



# MH-C777 Universal Charger & Conditioner

## Charge Just About All of Your Battery Packs

- Charge almost all of your NiCD & NiMH battery packs for your handhelds, camcorders, cellular, and notebooks!
- Auto 4.8V to 12V detection.
- -dV driven microprocessors plus temperature probe.
- For home and vehicle use.
- CAR ADAPTER INCLUDED!



MH-C777

## Consumer Batteries & Charger



MH-C204F

- Rapid charge & condition your AA / AAA NiMH & NiCD battery cells.
- BATTERY CHARGED IN 1-3 HOURS!
- Two independent banks for 2 or 4 AA or AAA batteries.
- Automatic detection PLUS trickle charge.
- Ultimate solution for your batteries on handhelds, FRS, digital camera, CD player, and toys.

## Rapid Charge & Condition Your AA & AAA Batteries

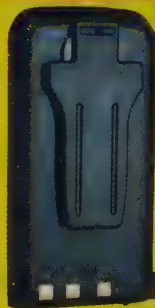
Also available: MH-C124S, 1-4 cell overnight slow charger.  
AA-T, 1300mAh 1.2V NiMH AA Battery Cell.

## Ultra High Capacity NiMH Battery Packs

### Ultra High Capacity plus Durable Reliability

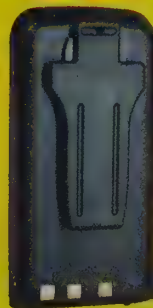
- Ultra high capacity.
- No memory effect.
- Maha's legendary quality.
- Environmental friendly.
- Maintains full voltage during 80-90% of use.
- Full one-year limited warranty.
- Great selection!

1800MAH



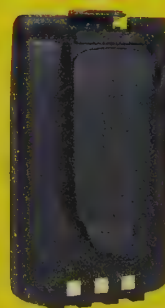
MH-PB-39H  
1800mAh 6V for Kenwood  
TH-G71A / D7

1050MAH



MH-PB-39  
1050mAh 9.6V for  
Kenwood TH-G71A / D7

ICOM T8A



MH-BP-200  
680mAh 9.6V for Icom IC-  
T8A

<http://www.maha-comm.com/>

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2841-B Saturn St, Brea, CA 92821 Tel: 800-376-9992 or 714-985-9132 Fax: 714-985-9221





### BIRD Electronic Corporation

#### 43 THRULINE® Wattmeter

Measures incident & reflected power in coaxial transmission lines with  $\pm 5\%$  of full scale accuracy; insertion VSWR is less than 1.05.

Comprised of a line section, and a direct-reading meter with expanded scales in 25, 50 and

100 units. Rugged, durable aluminum case.

Supplied with SO-239 Quick Change (QC) type connectors w/opt. N and BNC types available.

Optional plug-in elements provide a wide choice of frequency ranges from 2-1000MHz, with power levels up to 5KW from 2-30MHz and up to 1KW from 30-1000MHz. Select one or more elements now, add others as needed. 6" h x 5" w x 3" d, 3 lbs ..... **\$276<sup>95</sup>**

#### 4431 THRULINE® Wattmeter

Same as 43, has built-in variable RF signal sampler to provide adjustable low level signal sample for counters, scopes, analyzers. **\$487<sup>95</sup>**



#### 43P Peak Reading Wattmeter

Same versatile functions as the 43, but incl. switch selectable Peak Reading (PEP) capability. Uses same plug-in elements, QC connectors and accessories. Requires two 9V batteries ..... **\$416<sup>95</sup>**

See Price List for BIRD accessory pricing

TABLE 1 Standard BIRD Elements

Power Range	2-30	25-60	50-125	100-250	200-500	400-1000
5 watts	—	5A	5B	5C	5D	5E
10 watts	—	10A	10B	10C	10D	10E
25 watts	—	25A	25B	25C	25D	25E
50 watts	50H	50A	50B	50C	50D	50E
100 watts	100H	100A	100B	100C	100D	100E
250 watts	250H	250A	250B	250C	250D	250E
500 watts	500H	500A	500B	500C	500D	500E
1000 watts	1000H	1000A	1000B	1000C	1000D	1000E
2500 watts	2500H					
5000 watts	5000H					

TABLE 2 Low-Power BIRD Elements

1 watt	Cat. No.	2.5 watts	Cat. No.
25-30 MHz	025-1	25-30 MHz	025-2
30-35 MHz	030-1	30-40 MHz	030-2
35-40 MHz	035-1	40-50 MHz	040-2
40-50 MHz	040-1	50-60 MHz	050-2
50-60 MHz	050-1	60-80 MHz	060-2
60-80 MHz	060-1	80-95 MHz	080-2
80-95 MHz	080-1	95-150 MHz	095-2
95-125 MHz	095-1	150-250 MHz	150-2
110-160 MHz	110-1	200-300 MHz	200-2
150-250 MHz	150-1	250-450 MHz	250-2
200-300 MHz	200-1	400-850 MHz	400-2
275-450 MHz	275-1	800-1000 MHz	801-2
425-850 MHz	425-1		
800-1000 MHz	801-1		

#### Variable RF Signal Samplers

Stand alone wide-range, THRU-LINE® RF coupling probes for spectrum analysis, RF signal observation on a scope, or frequency counting and control.



### STARTEK FREQUENCY COUNTERS

STARTEK ATH Series Frequency Counters are Subcompact, Pocket-size units, designed for ease of use and dependable operation. The Low Cost of these instruments belies the Quality Construction and innovative features found throughout.

STARTEK counters are used to find transmitting frequencies, locate RF sources, check all sorts of transmitting equipment for operation and frequency calibration. They are used with antenna analyzers for antenna tuning and to check/monitor the output frequency of transmitters, signal generators, etc.



ATH series counters have High-Speed Response and a special AUTO TRIGGER & HOLD feature. They can display and hold the frequency of a signal in less than 1/10 second. All have two MMIC amplifiers and ultra high sensitivity - less than 1 mV over most of the range. All have anodized aluminum cabinets with machine thread screws, auto polarity power input (9-12VDC), 6 sample times, a manual HOLD switch, Ni-Cad batteries & 110V AC adapter. Made in the USA.

**ATH-15** 1-1500 MHz. 2 inch, 10 segment signal strength Bar Graph, low battery indicator..... **\$189<sup>95</sup>**

**ATH-30** 1-2800MHz. Signal strength Bar Graph, low battery indicator, reset control & ONE-SHOT feature (single read & hold, does not allow subsequent signal to displace reading, switch selectable) ..... **\$249<sup>95</sup>**

**ATH-50** 5-2800 MHz (2.8GHz). Has HIGH IMPEDANCE input (1 megohm) from 5 Hz to 50 MHz that can be used with probe without excessive circuit loading. Also Bar Graph, low battery indicator, ONE-SHOT and reset control. This compact model does more than most bench counters..... **\$299<sup>95</sup>**

**OPTION HST-15** High accuracy option.  $\pm 0.2$  PPM TXCO timebase, 18-40°C. Order the ATH-30/50 counters with this option ..... additional **\$100<sup>00</sup>**

**BAND PASS FILTERS** Four filters available to extend readability distance: **LP-60** DC-60MHz; **BP-150** 130-500MHz; **HP-400** 400-1500MHz; **HP-800** 800-2000MHz..... each **\$49<sup>95</sup>**

**ACCESSORIES** - See Price list for complete listing.

STARTEK Help Line: (954) 537-5577

### DIAMOND ANTENNA

#### SWR/Power Meters

Five models, measure power & SWR with



S-10% of F.S. accuracy. Illum. meter, sensor switch, LED indicator. Power ratings for intermittent oper. For contin., ratings vary with freq. SO-239 connectors on all except SX-1000 (type-N). SX-600 & SX-1000 are dual-band. 6" w x 2 1/2" h x 4" d, 2 lbs.

**SX-100** 1.6-60MHz, 30/300/3kW ranges ... **\$134<sup>95</sup>**

**SX-200** 1.8-200MHz, 5/20/200 ranges ..... **94<sup>95</sup>**

**SX-400** 140-525MHz, 5/20/200W ranges..... **114<sup>95</sup>**

**SX-600** 1.8-160MHz and 140-525MHz, 5/20/200W ranges ..... **169<sup>95</sup>**

**SX-1000** 1.8-160MHz and 430-1300MHz, 5/20/200W ranges ..... **214<sup>95</sup>**

#### New! Cross-Needle SWR/POWER Meters

Indicate forward and reflected power and SWR simultaneously. 50Ω impedance, SO-239 connectors, 10% F.S. accuracy, 3.3" w x 3.4" h x 3.7" d, 9 oz

**SX-20C** 3.5-30/50-54/130-150MHz ranges; 30/300W (SW min) ... **\$89<sup>95</sup>**

**SX-40C** 144-470 MHz (220 MHz with correction factor); 15/150W (3W minimum power) ..... **\$79<sup>95</sup>**



### MIRAGE

#### SWR/Power Meters

Four models, all measure RMS & peak forward & reverse power & SWR, directly without charts or calculations. Negligible insertion loss. Removable coupler, SO-239 connectors. Requires 9V battery, or AC adapter. Low batt. indicator. 5 1/4" x 4 1/2" w x 5 3/4" d, 3 1/2 lbs.



**MP-1** 1.8-30MHz; 25, 200, 2KW ranges..... **\$219<sup>95</sup>**

**MP-2** 50-200MHz; 50, 500, 1.5KW ranges..... **219<sup>95</sup>**

**MP-3** 425-450MHz; 5, 50, 150W ranges..... **249<sup>95</sup>**

### Bel MERIT

#### DX-405 Multi-func. Multimeter • 10

func/39 ranges • 3 1/2 digit, manual ranging • Freq. meter, to 20MHz • 0.25% DCV basic accuracy • Measure voltage, current, resistance & diode • Contin. beeper • Data hold • Auto power off • Input warning • Tilt stand w/lead holder • Holster • 4" w x 7.5" h x 1.5" d, 1.5 lb **\$69<sup>95</sup>**

#### DX-355 Digital Multimeter

Designed for Industrial Heavy Duty - All Current Range Fused - Extensive Overload Protection • 0.25% DCV Basic accuracy • Measure voltage, current, resistance, diode and frequency up to 20MHz • True RMS reading • Data hold • Auto power off • Tilt stand with lead holder • Protective holster • 4" w x 7.5" h x 1.5" d, 1.5 lbs..... **\$74<sup>95</sup>**

#### DM-80 Pocket Digital Multi-meter

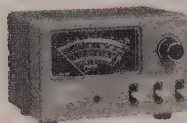
3200 count • 32 segment bargraph • Auto & manual ranging • Auto power off • Data hold • Range • Voltage, AC/DC 450V • Current, AC/DC 300mA • Resistance, 30MΩ • Diode test • Continuity beeper • Over range indication • Low batt. mark auto polarity • Carrying case incl. • 2" w x 4.1" h x 0.4" d, 3.2 oz..... **\$34<sup>95</sup>**

### YAESU SWR/Power Meters

#### YS-60 Monitors average

(CW) and peak (SSB) transmitter power and VSWR. Covers 1.6 to 60MHz, up to 2KW. Meter ranges: 0/200 & 2000W. 50Ω impedance, SO-239 connectors. Requires 12V DC for meter lamps & internal circuits. 4 3/4" w x 2 1/4" h x 3 3/4" d, 1 1/2 lbs **\$129<sup>95</sup>**

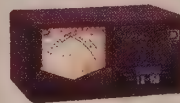
**YS-500** Similar to YS-60, but covers 140-525MHz, 4/20/200W ranges..... **\$109<sup>95</sup>**



### DAIWA Industrie Co. Ltd.

#### CN-101 Cross-Needle Power

& SWR Meter Covers 1.8 to 150MHz, rated at 1500W from 1.8-60MHz and up to 1000W at 144MHz. Shows Forward and Reverse power and VSWR simultaneously. Three Power Ranges: 5/150/1500W (RMS or PEP);  $\pm 10\%$  of full scale accuracy. SWR detection sensitivity: 4W minimum. 50Ω impedance, SO-239 connectors. 6" w x 3" h x 3 3/4" d, 1 1/2 lbs..... **\$94<sup>95</sup>**



**CN-103M** Cross-Needle Power/SWR Meter Same as CN-101, but covers 140-525MHz & rated at 200W. Two Power Ranges: 20/200W (RMS or PEP) .... **\$99<sup>95</sup>**

#### CN-410M Compact Cross-Needle Power & SWR Meter

For mobile or base use - covers 3.5 to 150MHz. Two power ranges: 15/150W forward & 50/5W reflected. Backlight meter shows forward/reverse Power and VSWR simultaneously. SWR detection sensitivity: 3W mini. 50Ω imped., SO-239 connectors. Mounting bracket incl. 2 3/4" x 3" d x 3 3/4" d, 10 oz.... **\$119<sup>95</sup>**

**CN-460M** Compact Cross-Needle Power & SWR Meter Same as 410, but covers 140-450MHz **\$99<sup>95</sup>**





**864** (bottom) Covers 1.8 to 60MHz, 144MHz & 440MHz bands. Dual sensors, connect an HF & VHF/UHF rig at the same time. Monitor SWR and power of either. Lighted cross-needle meter indicates 30/300W forward and 6/60W reflected power simultaneously. Uses 12V DC for meter light. 7 1/4" w x 2 1/2" h x 2 1/4" d..... **\$84<sup>95</sup>**

**862** (middle) Similar to 864, but for 144MHz, 220MHz & 440MHz. Ranges: 30/300 watts forward & 6/60 watts reflected. 5 3/4" w x 2 1/2" h x 2 1/4" d..... **\$54<sup>95</sup>**

**860** (top) Similar to the 864, but covers HF - 1.8 to 60MHz. Ranges: 30/300 watts forward and 6/60 watts reflected. 4 1/2" w x 2 1/4" h x 3" d..... **\$44<sup>95</sup>**

**815B** Features large 3" lit cross-needle meter. Gives accurate SWR & peak or ave. power readings from 1.8-60MHz. Ranges: 200/2000W forward & 50/500W reflected. Push buttons 12V DC for meter light. 7 1/4" w x 2 1/2" h x 2 1/4" d..... **\$69<sup>95</sup>**

**817** Looks & features similar to 815B but covers 144 & 440MHz bands. Power Ranges: 200/20 forward & 50/50W reflected. 7 1/4" w x 2 1/2" h x 2 1/4" d..... **\$79<sup>95</sup>**

**812B** Indicates forward & reflected power on 2M & 220MHz & SWR 14-220MHz, plus field-strength 1-220MHz. Ranges: 30/300W ranges & 4 1/2" w x 2 1/4" h x 3" d..... **\$34<sup>95</sup>**

**816** Indicates forward and reflected power from 1.8 to 30MHz. Ranges: 30/300W. 4 1/2" w x 2 1/4" h x 3" d..... **\$34<sup>95</sup>**

**GrandMaster™** 3 1/4 x 1 1/4" precision meter, forward/reflect. 3 ranges. 13.8V/110V. 7 1/2" w x 3 1/4" h x 4 1/4" d.....

**870** (HF) Covers 1.6 to 60MHz. Power ranges: 30/300/3000W..... **\$124<sup>95</sup>**

**872** (HF/VHF) Covers 1.8 to 200MHz. Power ranges: 5/20/200W..... **\$94<sup>95</sup>**

**873** (VHF/UHF) Covers 125 to 525MHz. Power ranges: 5/20/200W..... **\$104<sup>95</sup>**

**874** (HF/VHF/UHF) Covers 1.8 to 525MHz. Power ranges: 5/20/200W..... **\$159<sup>95</sup>**

#### MISCELLANEOUS

**850** Line Voltage Monitor Plug into any 110V AC outlet and monitor line voltage on an expanded 95 to 135 Volt scale. 2 1/4" x 2 1/4" x 1 1/2"..... **\$19<sup>95</sup>**

**204B** Antenna Bridge Quickly optimize 1.8-30MHz antennas for peak performance. Portable - take it to an antenna site. Determine if an antenna is too long or too short, measure resonate freq. & resistance to 500Ω. Built-in resistance bridge, null meter, tunable oscillator-driver. Uses 9V batt. 4" h x 2" w x 2" d..... **\$79<sup>95</sup>**

#### DUMMY LOADS OIL FILLED

**250** Versaload 50Ω oil-filled dummy load providing low VSWR to 400 MHz. Rated at 1 KW CW or 2KW PEP for 10 min., with 50% power rating for 20 min. & 200W CW (400W PEP) contin. 7 1/4" h x 6 1/2" dia With oil **\$49<sup>95</sup>**

**250X** same, but no oil..... **\$29<sup>95</sup>**

#### DRY LOADS

Air cooled, non-inductive 50Ω resistor mounted in a metal housing. Full rated load for 30 sec. w/de-rating curve to 5 min.

**260C** (HF/VHF) Rated at 300W. 1:1 SWR up to 30MHz, then 1.5:1 up to 650MHz. 2 1/2" w x 2 1/2" h x 7" d..... **\$29<sup>95</sup>**

**260CN** With type "N" connectors..... **\$34<sup>95</sup>**

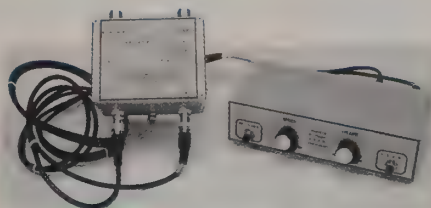
**264** (UHF) Performs from 1.3 to 650MHz, usable to 750MHz. Rated at 1.5KW for 10-seconds and 100W for 10-minutes. 3" w x 3" h x 9" d..... **\$59<sup>95</sup>**

## Affordable... RF Applications, Inc. High Performance & High Quality RF Power Measurement Systems



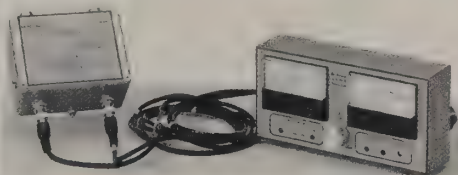
#### P-3000 HF Power & VSWR Indicator

Microprocessor based for fast, accurate power & VSWR readings from 1.8-30MHz & 15-2950 watts - without adjustments or calibration. Three separate instruments in One: Peak Digital Power Display, VSWR Display w/Alarms and 10-LED Instantaneous Power Bargraph. During high VSWR conditions a relay can interrupt the control line to linear to reduce chance of damage. Separate remote directional coupler locates up to 6' away. 50Ω input and output, SO-239 conn. Requires 12V DC @ 250mA. Display: 6 1/2" w x 5 1/2" h x 2 1/4" d; Coupler: 4 1/2" w x 3 1/2" h x 2 1/4" d, 6 lbs total..... **\$299<sup>95</sup>**



#### P-2000CW RF Power/VSWR Indicator

Uses an audible Morse Code interface to report the values of forward and reflected power. These values are stored during and at the end of each transmission and can be reported via CW while on the air or after the transmission. If the VSWR exceeds a preset value, the operator is alerted with the Morse "V" character, and a relay can provide control to disable a power amplifier, etc. Covers 1.8 to 30 MHz and indicates from 5 to 2000W Power and VSWR level. 12V DC. Display: 8" w x 4" h x 2" d. Remote Coupler: 4 1/2" w x 3 1/2" h x 2 1/4" d, 4 lbs..... **\$249<sup>95</sup>**



#### P-2000A RF Power & VSWR Indicator

For HF applications from 1.8 to 30MHz and up to 2000W RF output. It has an adjustable meter response time and uses the same remote coupler as the P-3000 unit. An adjustable VSWR setting and a relay are provided that can be used to automatically disable an amplifier under high VSWR conditions. Display: 8" w x 4 1/2" h x 2 1/4" d; Coupler: 4 1/2" w x 3 1/2" h x 2 1/4" d..... **\$299<sup>95</sup>**

#### P-1500 Digital RF Power and V.S.W.R. Indicator

Covers 1.8-30MHz, rated at 1.5kW contin. Built-in coupler. 4-digit LED display, auto-ranging bargraph. VSWR status lights. 12VDC/100mA 4" w x 3 1/2" h x 4" d, 4 lbs..... **\$199<sup>95</sup>**



#### DC Adapters

**P-3000-P** 12V adapter for P-3000, P-2000A and P-2000CW..... **\$12<sup>95</sup>**

**P-1500-P** 12V adapter for P-1500..... **\$16<sup>95</sup>**

Information Direct:  
[www.rfapps.com](http://www.rfapps.com)



#### Match Alert™ VSWR Monitor & Alarm

Provides protection for HF transmitting systems! A microprocessor monitors antenna VSWR and provides a fast visual and electrical alarm if any of eight different dip-switch selectable VSWR presets are exceeded. Covers 1.8 to 30MHz and is rated at 3000W. A relay contact is available via a 3 ft. long cable for millisecond control of an external function such as shutting down an amplifier, etc. Cast aluminum enclosure, PL-259 connectors. Requires 11 to 16V DC..... **\$129<sup>95</sup>**

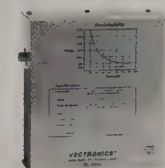
### VECTRONICS DUMMY LOADS



**DL-300M** Dry Dummy Load Simulates an accurate 50Ω antenna up to 150 MHz. Test your transmitter without radiating a signal. Power handling curve rated at 300W for 15-seconds, to 100W for 40 seconds. VSWR <1.3:1 at 150MHz. 5" h x 2" d x 2 1/2" h, 8 oz..... **\$34<sup>95</sup>**



**DL-650M** Dry Dummy Load Good all the way up to 650MHz. Power handling curve is rated at 1500W for 10-seconds, down to 100W for 10-minutes. VSWR <1.3:1 at 500MHz..... **\$64<sup>95</sup>**



**DL-2500** Dry load (Hi-Power) A fan cooled heavy-duty load for up to 150MHz. Power handling curve rated at 2500W for 1 minute, down to 500W for 10 minutes..... **\$179<sup>95</sup>**

### SWR & POWER METERS

**PM-30HF** Similar to pic. RMS or PEP forward and reflected power and SWR simultaneously. Lighted cross-needle meter. Covers 1.8-60MHz, 300/3000W ranges. 5 1/2" w x 3 1/2" h x 5 1/2" d, 1.2 lbs..... **\$79<sup>95</sup>**

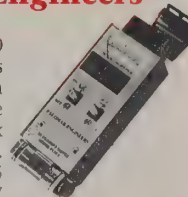
**PM-30UV** (shown) Same features as the 30HF, but covers 144, 220 and 450MHz bands..... **\$89<sup>95</sup>**



### PALOMAR Engineers

#### PCM-1 RF Current Meter

Measures current from 1-30 MHz. Clamp-on design allows check of: radial sys. for broken radials; antenna and feedline currents; Currents on coax shields & on wire up to 1/2" dia. 3 Ranges: 100mA, 1 amp & 5 amps. Handheld, portable, 9V batt. oper. - use at ant. 6" w x 2" h x 2" d, 9 oz **\$129<sup>95</sup>**



**NGC-3000** Bench SWR & Power Meter Covers range from 118 -530MHz. Large illuminated meter, 5W-20W & 200W power ranges, both average and PEP. 12V DC 7 1/4" w x 3 1/4" h x 4 1/4" d, 2 lbs..... **\$99<sup>95</sup>**

More Comet & NCG meters - see Price List

### VANCO

#### Low Cost Meters



**SWR-1** Field Strength or SWR meter Range: 3.5 to 150 MHz; Impedance: 52Ω; SWR: 1:1-3:1; Accuracy: 5%; Meter Sensitivity: 300uA; RF Pick-up: 5" whip; 6" h x 2" w x 2 1/4" d, 14 oz..... **\$19<sup>95</sup>**



**SWR-3** SWR Meter Freq. Range: 1.7 to 30MHz; Impedance: 50-52Ω; SWR: 1:1-3:1; Accuracy: ±5%; Meter Sensitivity: 300uA; 2 1/2" x 3 1/2" x 3", 6 oz.. **\$14<sup>95</sup>**



# The MFJ-259B

## 1.8-170 MHz SWR Analyzer™

### Can't Afford Not to Have One!



MFJ-259B  
\$229.95

#### More MFJ SWR Analyzers™

MFJ-249B, \$209.95. Like MFJ-259B, but reads SWR, true impedance magnitude and frequency only on LCD. No meters.

MFJ-209, \$119.95. Like MFJ-249B w/out LCD or freq. counter, but reads SWR only on meter.

MFJ-219B, \$89.95. UHF SWR Analyzer™ covers 420-450MHz. Jack for external freq. counter. 7½" x 2½" x 2¼". Use two 9 volt batteries or 110 VAC with MFJ-1312B, \$12.95. Free "N" to SO-239 adapter.

#### MFJ 2 Meter FM SignalAnalyzer™

MFJ-224, \$149.95. Measure signal strength over 60dB range, check and set FM deviation, measure antenna gain, beamwidth, front-to-back ratio, sidelobes, feedline loss in dB. Plot field strength patterns, position antennas, measure preamp gain, detect feedline faults, track down hidden transmitters, tune transmitters and filters. Plug in scope to analyze modulation wave forms, measure audio distortion, noise and instantaneous peak deviation. Covers 143.5-148.5MHz. Headphone jack, battery check function. Uses 9V battery. 4"x2½"x6¼".



<http://www.mfjenterprises.com>

MFJ ENTERPRISES, INC.  
Box 494, Miss. State, MS 39762  
(601) 323-5869; 8-4:30 CST, Mon.-Fri.  
FAX: (601) 323-6551  
Tech Help: (601) 323-0549

Prices and specifications subject to change. (c) 1998 MFJ Enterprises, Inc.

# MFJ

The world's most popular SWR analyzer just got incredibly better and is giving you more value than ever!

The MFJ-259B is a complete Ham radio test station including – Frequency Counter, RF signal generator, SWR Analyzer™, RF Resistance and Reactance Analyzer, Coax Analyzer, Capacitance and Inductance Meter and more!

Take the frustration out of getting your antennas properly tuned up for maximum performance. Gone are the days of using a conventional, sometimes questionable, SWR meter. You will no longer have to drag your rig (RF source) out into the yard. No more risking a heart attack running in and out of the house or up and down the tower to make those seemingly endless readings and adjustments.

The MFJ-259B is an all-in-one unit, with a built-in RF source so you can take it to the antenna, take one reading to get a complete picture of your antenna performance, and make all tuning adjustments on the spot.

Super EZ to use! Connect the feed line, set the bandswitch and tune the dial -- just like a transceiver. All information is clearly displayed instantly on the large, easy-to-read, 2-line LCD screen and side-by-side meters.

Read antenna SWR & Complex Impedance from 1.8-170MHz. Complex Impedance can also be read as series resistance and reactance (R+jX) or as magnitude (Z) and phase (degrees).

When tuning transmission lines or making up phasing harnesses for stacking antennas, you can quickly determine exact 1/4 or 1/2 wavelengths. You can also determine the velocity factor, coax cable loss in dB, length of coax and distance (in feet) to a short or open in coaxial cable.

Read SWR, return loss and reflection coefficient at any freq. simultaneously at a glance, also inductance in uH and capacitance in pF at RF freq.

The MFJ-259B has a built-in frequency counter, Ni-Cad charger circuit, battery saver, low battery warning, and smooth reduction drive tuning.

#### Overall, Here's what you can do

- Find true resonant frequency of antenna.
- Trim dipoles and verticals.
- Adjust your Yagi, quad, loop and others, change antenna spacing and height. Watch SWR, resistance & reactance change instantly. You'll know exactly what to do, simply watch the display.
- Perfectly tune critical HF mobile antennas in seconds for super DX -- without subjecting your transceiver to high SWR.
- Measure your antenna's 2:1 SWR bandwidth on one band, or analyze multiband performance over the entire spectrum 1.8-170 MHz!
- Check SWR outside the ham bands without violating FCC rules.
- Take the guesswork out of building and adjusting matching networks and baluns.

- Accurately measure distance to a short or open in a failed coax. Measure length of a roll of coax, coax loss, velocity factor and impedance.
- Measure inductance and capacitance.
- Troubleshoot and measure resonant frequency and approximate Q of traps, stubs, transmission lines, RF chokes, tuned circuits and baluns.
- Adjust your antenna tuner for a perfect 1:1 match without creating QRM.

#### Call or write MFJ for Free Manual

MFJ's comprehensive instruction manual is packed with useful applications -- all explained in language you can understand.

#### Take it anywhere

Fully portable, take it up towers, to remote sites, or on DX-peditions. It uses 10 AA or Ni-Cad batteries (not included) or 110 VAC with MFJ-1315, \$14.95. Its rugged, all metal cabinet is a compact 4" x 2" x 6¼".

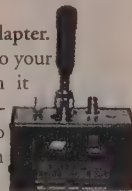
#### How good is the MFJ-259B?

MFJ SWR Analyzers™ work so good many manufacturers use them in their labs and on production lines -- saving thousands of dollars in instrumentation costs! Used by professionals worldwide.

#### SWR Analyzer Accessories

MFJ-66, \$19.95. Dip Meter Adapter.

Plug a dip meter coupling coil into your MFJ SWR Analyzer™ and turn it into a sensitive, accurate band-switched dip meter. Set of two covers 1.8-170MHz depending on your SWR Analyzer™.



MFJ-29C, \$24.95. Genuine MFJ Carrying Case.



Tote the MFJ-259B anywhere with this custom carrying case. Has back pocket w/security cover for carrying dip coils, adapters & accessories. Made of special foam filled fabric to cushion blows and deflect scrapes. Protect knobs, meters and displays from harm.

Wear it around your waist, over your shoulder, or clip it onto the tower while you work -- the fully-adjustable webbed-fabric carrying strap has snap hooks on both ends. Has clear protective window for freq. display and cutouts for knobs and connectors - use the Analyzer without unpacking it.

MFJ-731, \$89.95. Tunable Measurement Filter™. Allows accurate SWR and impedance measurements 1.8-30 MHz in presence of strong RF fields. Has virtually no effect on measurements. Works w/all SWR analyzers.



MFJ-99, \$54.95. Accessory Package for MFJ-259B/249B/209. Includes 29C carrying case, 66 dip meter adapter, 1315 110 VAC adapter. Save \$4.90!

More hams use MFJ SWR Analyzers™ than any others in the world!



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1200 pages of basic and advanced radio theory. Plenty of how-to information and illustrations. Software can be downloaded from the ARRL Web site or the League's Hiram BBS ..... **ARR 099 \$32**

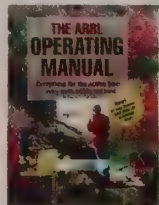
### 1999 Radio Amateur's Handbook CD 2.0

Complete text of the 1998 ARRL Handbook - every word, every page.

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- The Handbook template packages are now included as Adobe Portable Document Format files, and a copy of Adobe's Acrobat Reader 3.0 is included on the CD-ROM to allow you to view and print the template packages.
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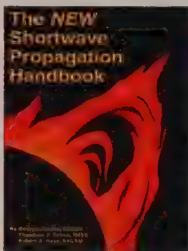
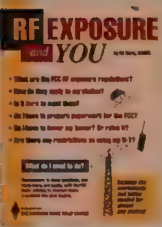
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Complete guide to all FCC regulations pertaining to amateur radio ..... **ARR 160 \$12**

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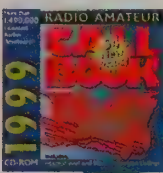
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15 months of pictures taken by pros and loaded with helpful info. Includes contest dates, moon phases, meteor showers and holidays. Use from January 1999 thru March 2000.

The Classics Calendar is full of beautifully photographed vintage ham equipment. Each month you'll reminisce about radio history including Johnson, National, Gonset, Collins. The Amateur Radio Calendar has wonderful photos of stations, antennas and well-known Amateur personalities. Everything from exotic moonbounce arrays to a classic '50s station. Classics Calendar ..... **CQX 1999RADCLCAL \$9<sup>95</sup>**  
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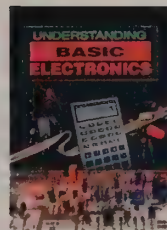


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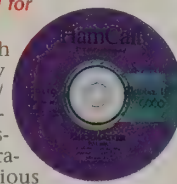
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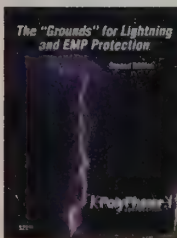
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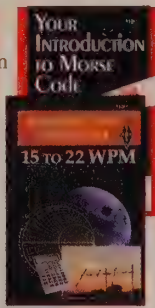


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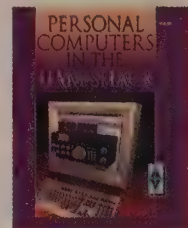


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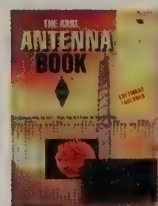


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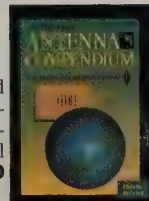
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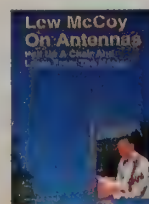
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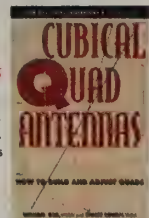
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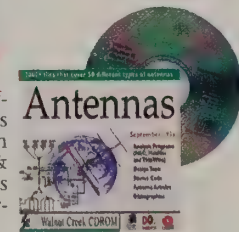
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- For Microsoft Windows™ 3.1 or higher. Years – 1970-74, 75-79, 80-84, 85-89 or 90-94 ..... **\$39<sup>95</sup>**

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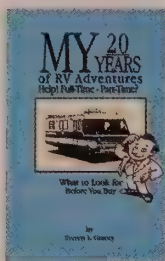
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Helps newcomers to RV'ing on what to look for when buying an RV for pleasure, business or full-time living. Will advise new buyers on pitfalls and has a checklist of things to look for when purchasing. Also makes suggestions on full-time/part-time RV'ing. Which is best for you? An RV will give people a chance to visit beautiful places in the United States: national parks, historical sites, lakes and visiting families. Purchase directly from:

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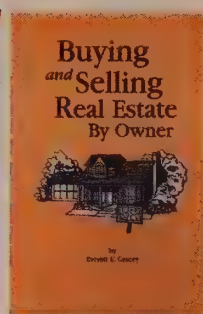
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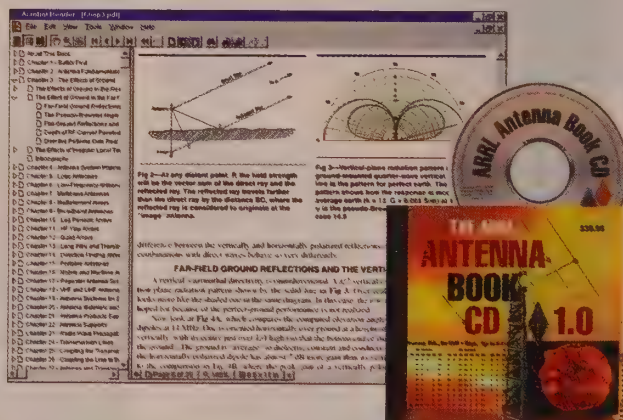
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# MFJ Pre-wired Radio to TNC Cables

pre-wired for most  
8-pin round micro-  
phone connectors  
figs and handheld  
transceivers.

**\$14<sup>95</sup>** each  
Some models may be  
Special Order!

Radio	TNC Type	All MFJ TNCs and multimodes	KAM VHF <sup>3</sup> KAMHF/KP C3 <sup>3</sup> /KP9612 <sup>5</sup>	PK-232	PK900/PK96/ PK12/DSP232 /PacComm/others
Alinco/ Standard HTs		MFJ-5022	MFJ-5022YV	MFJ-5022X	MFJ-5022
Icom/Yaesu/ R. Shack HTs		MFJ-5024	MFJ-5024YV	MFJ-5024X	MFJ-5024B
Kenwood <sup>2</sup> HTs		MFJ-5026	MFJ-5026YV	MFJ-5026X	MFJ-5026
Yaesu R-series HTs		MFJ-5020	MFJ-5020V	MFJ-5020X	MFJ-5020R
Yaesu 8-pin		MFJ-5080	MFJ-5080YV MFJ-5080YH	MFJ-5080X	MFJ-5080
Icom 8-pin		MFJ-5084	MFJ-5084YV MFJ-5084YH	MFJ-5084X	MFJ-5084
Kenwood/Alinco 8-pin		MFJ-5086	MFJ-5086YV MFJ-5086YH	MFJ-5086X	MFJ-5086
Yaesu <sup>4</sup> 8-pin modular		MFJ-5080M	MFJ-5080MYV	MFJ-5080MX	MFJ-5080M
Icom <sup>3</sup> 8-pin modular		MFJ-5084M	MFJ-5084MYV	MFJ-5084MX	MFJ-5084M
Kenwood 8-pin modular		MFJ-5086M	MFJ-5086MYV	MFJ-5086MX	MFJ-5086M
Radio Shack 8-pin modular		MFJ-5088M	MFJ-5088MYV	MFJ-5088MX	MFJ-5088M
MFJ-8621 Data Radio 5-pin DIN		MFJ-5100	MFJ-5100YV <sup>6</sup> MFJ-5100YH <sup>6</sup>	MFJ-5100X	MFJ-5100

1. Does not include IC-2WA  
2. Does not include 2500  
3. Does not include IC-100H,  
IC-2700H  
4. YV for KAM VHF port. YH

for KAM HF port. Other  
Kamtronic use YV models.  
5. YV for KP9612, 1200 baud  
port  
6. YH models for

KPC9612/9600  
7. Excludes DJ-  
100/120T/200/500  
8. Excludes FT-50, FT-8000

## MFJ MFJ ENTERPRISES, INC.

### New! Field Strength Meter



**801 Super Compact Field Strength Meter** You can read relative field strength from your antenna, measure antenna performance and discover how strong your antenna field is. Its super compact size fits in the palm of your hand, only 2 3/8" w x 3 3/8" x 1 1/4" d. Telescopic whip included. **\$19<sup>95</sup>**

**802 Bipolar Field Strength Meter** and can also be used with remote. A compact 2 3/8" w x 4 1/8" x 1 1/4" d. Two telescopic whips are included. **\$39<sup>95</sup>**



**18 HamGear™ Tactical Chest Harness** (left) Perfect for rugged use, emergency radio operators and on-the-go hams! Use it for portable hamfest use, DXpeditions, field day, biking, hiking, etc. Made of durable heavy duty twill burlap, this interwoven fabric is water resistant and will cushion blows and scrapes. Adjustable shoulder straps. Harness is firmly held in place by stretchable interwoven elastic belt with snap hook and adjustable sliders supported by nylon straps. A 5 x 7 inch cargo pocket holds another radio, maps, etc. **\$29<sup>95</sup>**

**15 HamGear™ Belt Radio Holder** (right) Durable twill burlap pocket with elastic cord and velcro closure easily stretches over any HT. Belt slides easily through 2 x 3 inch loop. **\$14<sup>95</sup>**



**310 HT Antenna Window Mount Clip** Extend your QSO range. Talk further, longer and clearer! Your HT with its rubber duck radiates poorly inside your car. The shielding effect of your roof gives you a very short-communications range.

This window mount clip holds your antenna securely on the outside of your car's window where it can radiate freely. It's quick and easy to install and can be tucked away discreetly in your car's glove compartment to eliminate theft problems.

Comes with 10 ft. feet of flexible mini-coaxial cable and BNC connector to fit your HT. **\$14<sup>95</sup>**



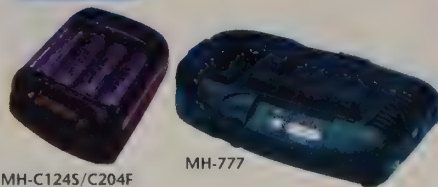
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**315 Adjustable foam padded jaws** lock your expensive HT in place and secures it for the bumpiest rides. Protects any HT or cell phone from damage. Quick release button lets you quickly take your HT with you. The adjustable FlexNeck™ lets you position your HT conveniently. Incredibly powerful suction

cups firmly mount the Jaws Gripmatic™ HT holder to your car window. Suction release tabs allow for quick and easy release from window. **\$14<sup>95</sup>**



## MAHA CHARGERS



MH-C124S/C204F

MH-777

### MH-C124S Standard Charger – \$9<sup>95</sup>

- Charges 1 to 4 AAA or AA Ni-CD or Ni-MH batteries, overnight (10-20 hours)
- Automatic charging cycle
- Four separate charging circuits and indicators

### MH-C204F Rapid i-Charger/Conditioner – \$24<sup>95</sup>

Some features the same as the C-124S above, but...

- Charges 1 to 4 AAA or AA Ni-CD & Ni-MH batteries within 1 to 3 hours
- Built-in conditioner discharges batteries before charging – revives Ni-Cds from poor performance, erases memory
- Two independent charging and discharging circuits enables charging one or two sets of two batteries.
- Microprocessor controlled charging extends the useful battery life.

### MH-C777

### Universal Rapid Charger & Conditioner – \$49<sup>95</sup>

Charge all of your amateur radio rechargeable battery packs, plus more...

Cellular, Notebook Computer, Two-Way Radio, etc.

- Accommodates and charges nearly any type of Ni-MH and Ni-Cd battery Packs – 4.8 to 12V
- Discharges and conditions before charging
- Uses the latest -dV and temperature detection
- For mobile and base use - car adapter included



### MFJ-396

Professional Grade  
Boom Microphone  
Headphone  
**\$79<sup>95</sup>**

Designed for contesting, DXing and traffic nets. Features a *total comfort* design with superb 3/4 inch thick padding on each ear and headband. Super lightweight! – you won't even know they're there. Adjustable head gives a perfect fit, keeps out noise. Enhanced headphone frequency response brings out speech fidelity, signals never sounded so clear. Flexible microphone boom lets you position the microphone comfortably at an optimum distance to minimize sibilant sounds.

Tailored frequency response microphone element helps bust through noise and QRM.

Long, 9 ft. cable with standard 1/4 inch jack for headphones and 3.5mm jack for microphone. Mic adapters: order MFJ-5396 Y/K/I (\$14.95 each.)

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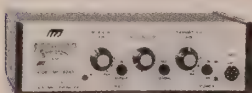


**281 Communications Speaker** Features 3" Mylar cone speaker mounted in well-designed baffle. Improved speech intelligibility in 600-4000Hz freq. range while reducing undesirable noise, static & hum. 3 1/4" x 3" x 2 1/4" ..... **\$9<sup>95</sup>**

**382 Deluxe ClearTone™ Amplified Speaker** Excellent 1W amplified speaker for QRP'ers, base station HT users or for oper. with rigs requiring more volume. Quality 3" speaker provides loud, powerful audio. Volume adjusts from barely audible to high. All metal cabinet, rubber feet & vinyl clad cover. Uses 9V battery (not incl.) or 110V AC with the optional MFJ-1312B (\$12.95). Connecting cable included. 3 1/2" h x 1 1/4" w x 4 1/2" d ..... **\$39<sup>95</sup>**



**701 RFI Free Choke Kit** Eliminates common RFI problems by winding offending cables around an RFI suppressing toroid. Includes 4 ferrite toroids, effective from .5-200MHz. Ea. separates into halves for easy winding on all types of cable: computer ribbon, TV coax, power cord, telephone wire, audio/video. Halves mount in snap-together plastic frame. For severe RFI problems & larger cables, multiples can be stacked for more effect ..... (Pack of 4) **\$14<sup>95</sup>**



**624D Deluxe Hybrid Phone Patch** Interfaces telephone line with your rig to run phone patches.

Easy to use, jumper selectable for all Kenwood, Icom, Yaesu and Alinco using an 8-pin microphone connector. Adapts to work with virtually any rig. Uses 12VDC, 9V battery or 110VAC with MFJ-1312B AC adapter (\$12.95). 8" x 2" h x 6" ..... **\$119<sup>95</sup>**

**931 Artificial Ground Unit** Eliminates the problems caused by an inadequate ground system when using random lengthwire antennas. Resonates an additional length of wire to act as a tuned counterpoise. Easier tuning, improved efficiency and a better radiation pattern. Covers 1.8 to 30MHz, RF ammeter tuning indicator. 7 1/2" w x 3 1/2" h x 7" d. Not for antennas fed with coaxial cable ..... **\$79<sup>95</sup>**



**1118 Deluxe Multi DC Outlet** Connects to a battery or power supply & provides power distribution to multiple devices. 2 pair of heavy-duty 30 amp, 5-way binding posts for transceivers/amps. Individually fused and RF bypassed, rated 35 amps total. Also, 6 pair of RF bypassed 5-way binding posts for accessories, 15 amps total, master fuse. ON/OFF switch, LED power indicator, 0-25V DC voltmeter. Post spacing for dual banana jacks. Incl. 6' of 8 gauge cable with terminals. 12 1/2" w x 2 1/2" h x 2 1/2" d ... **\$69<sup>95</sup>**

**1116** Similar to MFJ-1118 but without 30A posts. Provides eight RF bypassed 5-way binding posts. Voltmeter, ON/OFF switch and fuse. .... **\$44<sup>95</sup>**

**1112** Similar to MFJ-1116 but with five posts, no voltmeter or ON/OFF switch ..... **\$29<sup>95</sup>**



**315 Jaws Gripmatic™** Adjustable, foam padded jaws lock HT in place & secure it for the bumpiest rides. Protects any HT or cell phone from damage. Release button lets you quickly take your HT with you. Adjust. Flex-Neck™ provides convenient positioning. Suction cups mount Jaws Gripmatic™ to window. Tabs provide quick release ..... **\$14<sup>95</sup>**



**STARTEK**

## Micro B&W Video Camera



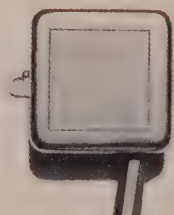
**CAM-PHA-AES** Miniature B&W TV camera with 1/3" CCD element providing 380 TV lines resolution. Features a pin-hole lens and built-in mic. Only 1 1/2" h x 1 1/2" w x 3/4" d, can be placed inside or behind objects with only a small hole required. *Infra-Red* sensitive so it can see in total darkness when "IR" illum. is provided. Output is standard NTSC composite or base line video, 1 Volt P-P into 75Ω via an 18" cable with RCA plugs which can be plugged directly in to any VCR or TV monitor. Works up to 300' with proper extension cables. AC adapter supplied, requires only 9-12VDC @ 100mA., works for a couple hours on a 9V Alkaline batt ..... **\$99<sup>95</sup>**



## NCG Power Pocket

Provides portable power for Emergencies, Hamfests, Hiking, etc. The 12V @ 2 amp/hour sealed lead-acid rechargeable battery provides talk time, up to 6 times longer than standard packs. It recharges completely in 6 to 8 hours, with the supplied charger; Partial discharges can

be recharged to 100% without the usual ni-cad memory effect. Radio conveniently plugs into included female adapter socket. Contained in a compact carrying case with a belt loop and shoulder strap. 3 1/2" w x 1" d x 6 1/2" h, 30 oz ..... **\$66<sup>95</sup>**



## OAK BAY

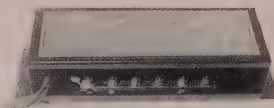
## Technologies

### BS-25 Automatic Battery Saver Module

Stops radio equipment from draining your car battery and prevents unauthorized use. Installs between radio and car battery. Automatically turns

on power when you turn the ignition on and removes power 4 to 8 min. after turning ignition off. Handles up to 25 amp draw at 14.8V DC. Plated steel enclosure, 2" x 4" x 1 1/4", fused power lead ..... **\$39<sup>95</sup>**

## High Power Current Strip



Make just one connection to your battery or power supply and distribute the power to multiple devices. Perfect for multiple HF/VHF radios or other high current equipment in the hamshack.

**PS-612M** Heavy-duty construction and high current capability. Provides six outputs with circuit breakers. Three outputs are rated at 30 amps and three at 20 amps. Rated for 50 amps total current. Steel housing. Comes with 4' of #8 gauge wire & lugs.. **\$64<sup>95</sup>**



## Popular Transmitting Tubes

4CX250B ..... **\$105<sup>95</sup>** 572B ..... **\$86<sup>95</sup>**  
4CX400A ..... **\$140<sup>95</sup>** 811A ..... **\$25<sup>95</sup>**  
4CX800A ..... **\$190<sup>95</sup>** 8874 ..... **\$335<sup>95</sup>**  
572B & 811A are in Stock, others are Special Order

## The Pouch

A protective carrying case for H.T.'s made of water-resistant neoprene & nylon. "Bungee type" restraining-strap. Belt loop has secure "spear-in" clasp.



Make/Model	Pouch#	Price
<b>ADI</b>		
AT-201/401/600	T2A	17.95
PR-52/222	PR	17.95
<b>ALINCO</b>		
DJ-C1T/C4T/C5T	AF-738	12.95
S11/S41	P-5	17.95
S46T	P-5	17.95
190/191	Slim	17.95
280T	VX3T	17.95
<b>CHEROKEE</b>		
AH-50	T2A	17.95
<b>ICOM</b>		
IC-2GXAT	S-1	17.95
21/41AT	P-5	17.95
Q7	508	14.95
T2A	T2A	17.95
T7A	P-5	17.95
T8A	510	14.95
T22/42A	P-5	17.95
W32	S-2	17.95
<b>KENWOOD</b>		
D7A	DTX	17.95
TH-22A/42A	SS	17.95
TH-G71A	G-71	17.95
TH-79A	S-1(2.7w)	17.95
TH-79A	S-2(5w)	17.95
UBX-LF14	P4-V	14.95
VC-HI	S-2	17.95
<b>STANDARD</b>		
C-108/C508	508	14.95
C-510	510	14.95
C-156/168/178	P-5	17.95
C-288	Slim	17.95
C-568/C-628	P-5	17.95
<b>YAESU - VERTEX</b>		
FT-10R/50R	10R	14.95
FT-11R/71R	P-5	17.95
FT-51R	SS	17.95
VX-1R	1R	12.95
VX-5R	SR	12.95
VXF-1	XF-1	14.95

## ANALYZER POUCH

The original from The Pouch. Clear window over read-outs. Backpocket for accessories. Shoulder strap included. **\$24.95**



## ChestPOUCH

Double-ply cordura bib w/adjustable, "fits-all" harness. Extra Pouch for battery. Big pocket for accessories on the back. Specify Radio for Pouch. **\$25.95**





## CUTTING EDGE ENT. World-Pack Back Pack

**HMP** Transport your 100W station easily and safely while traveling. Small enough to qualify as carry-on luggage. Designed for small HF radios; specifically the ICOM IC-706 & the YAESU FT-100. Constructed of laminated heavy duty black nylon with 1/4" foam padding. Separate lower pouch for power supply or rechargeable battery with pass through holes for wiring. 17" h x 8" w x 3" d ..... **\$57<sup>95</sup>**

**Rechargeable Gel Cell Batteries** - 7AH rating with labeled wire harness, female cig. plug DC outlet & charger. Choice of 2 charge rates, won't overcharge.

**HPP-7A** 2-stage, recharges overnight..... **\$63<sup>95</sup>**

**HP-7AF** Fast 3-stage stage charger, will recharge from a full discharged state in 2.5 hours .... **\$119<sup>95</sup>**

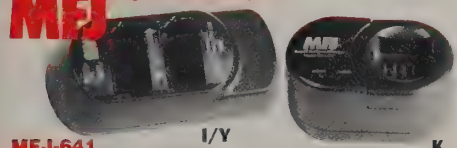
## UNIFIED MICROSYSTEMS W9XT Contest Card for IBM® & PC Compatible

A non-volatile 5" x 4 1/2" card that plugs-into a single 8-bit PC slot to provide voice recording, playback and CW keying.

Stores a total 60 seconds of voice audio divided into four 15 second messages. Samples at 8 kHz for high quality and natural sound. Does not use any disk space. For CW, the card frees up the PC port, and a relay allows operation with positive or negative keying. Works with all rigs and is compatible with most popular logging programs..... **\$149<sup>95</sup>**

**Contest Card Cable Semi-kit** Comes wired & tested except for connectors to mic & transmitter. Includes 6 ft. shielded cable, CW keying line and record switch (4 or 8 pin available)...**CCC-4, CCC-8 \$44<sup>95</sup>**  
ums@nconnect.net

## MEJ MFJ ENTERPRISES, INC.

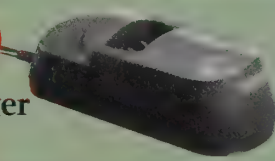


**MFJ-641** **I/Y** **K**  
**RapidBattery™ Universal Chargers**  
Provides both quick and trickle cycles & will charge NiCd or NiMH battery packs. Unique circuitry with LED indicators determines when the battery is fully charged and prevents damaging overcharging. Universal interchangeable charging slots for fast, simple drop-in charging. 3 1/2" x 5 1/2" x 3" ..... **\$49<sup>95</sup>**

- MFJ-641I2 works with ICOM batt. BP-131/BP-132
- MFJ-641I3 - ICOM BP-173/BP-180 • MFJ-641Y2 - YAESU FNB-10/11/12/17/27 • MFJ-641Y3 - YAESU FNB-31/FNB-33 • MFJ-641Y4 - YAESU FNB-40/41/49, FNB-V47 • MFJ-641K - KENWOOD PB-6/7/8/9/11/30/32/33/34, KNB-5/6/7/5A/6A/7A/9A

## KENWOOD

**BC-15A Desk Charger**  
**CLOSEOUT**



**Charges Kenwood PB-13, PB-14, PB-17 & PB-18 handheld batteries in 60 to 100 minutes.**

BC-15A looks similar to model pictured.

**\$29<sup>95</sup>** While they Last!

## JOHNSON

**SS-100** Convenient, avoid theft! Radio slides in and out of mount instantly without having to attach or remove cables. The power, ground, antenna, and speaker leads connect and disconnect automatically! RF components are designed for a low SWR up to 500MHz. Adapts to most radios; the bracket adjusts to case size and can be conveniently attached above or below the radio unit ..... **\$79<sup>95</sup>**

**SS-101** Extra base for multiple vehicle use .... **\$44<sup>95</sup>**

## AES Specialty Items CLOSEOUT

**SC-193** 12 Volt DC High-Powered Car Vac - **\$9<sup>95</sup>**

- Removable, washable filter
- Includes crevice tool for accessing tight areas
- 10 ft. car cord
- High powered motor

**SC-784** 12V Portable Handheld Spotlight with Tripod - **\$10<sup>95</sup>**

- Quartz halogen; 5" reflector-400,000 candle power
- 8 ft. cord with lighter plug
- High-impact ABS handle conceals foldable tripod for emergency use



## Q-View QSL Card Holders

Proudly display your favorite QSL cards in these 12" x 40" clear plastic hang-up holders. Each holds (20) 3-1/2" x 5-1/2" cards. Packets open at center to receive cards easily

Pack of 3 (frames & displays 60 cards) - **\$12<sup>95</sup>**

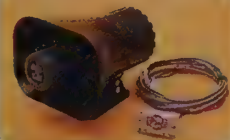
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## GROTHE Sirens & Horns

### VS-2 Emergency Vehicle Siren

Designed for the Volunteer Fireman, a quality built Wail-Yelp alarm that delivers big sound performance - 120Db sound level at 4 ft. Frequency range: 600 to 1200Hz. Pre-wired with a 3-position switch (Yelp-Off-Wail), high efficiency waterproof horn speaker, 10 ft. cable, mounting bracket & hardware. 12VDC @ 1.5A, 2.7 lbs.... **\$89<sup>95</sup>**



### VS-3 Vehicle P/A and Airhorn w/Rebroadcast

A big, powerful airhorn sound with four different sounds (no siren) calls attention to your vehicle. Delivers 120 Db sound level at 4'. Locking down the microphone with the supplied rubber band, you can monitor sound from a mobile rig, scanner, etc. via the speaker outside. Includes horn speaker, mic, electronic center, 10' cable, mounting bracket & hardware. 12 VDC @ 1.5A..... **\$129<sup>95</sup>**



**VS-4 P/A Emergency Vehicle Siren** Contains P/A, Rebroadcast, Wail, Yelp, Pulse & Airhorn. P/A Override features, plus volume control of all siren modes. Restricts output when operating in people places. Includes horn speaker, microphone, 3" x 3 1/2" x 2" electronic center, 10 ft. cable, mounting bracket and hardware. 12V DC @ 1.5A..... **\$139<sup>95</sup>**



**Siren-Light Combo** A one-unit siren/yelp alarm, revolving halogen or strobe light and window mount. Fits all cars, slides on top of car window and plugs into cigarette lighter outlet. The power plug contains as an "on" LED and three position switch to select Yelp, Off or Wail modes. 12 VDC @ 5A.

**VS-2LS Strobe** Specify amber, blue or red... **\$299<sup>95</sup>**

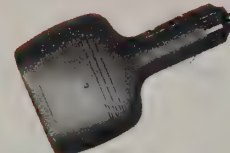
## TRIPP LITE THE POWER PEOPLE

**Isobar** - World's most advanced surge suppressors. They provide instantaneous (0ns) response to power surges. Isolated filter banks eliminate connected equipment interference "Cascade circuitry" provides increased surge protection and diagnostic LEDs.

**Various Models: See Tripp Lite in the Price Guide**



## VANCO.



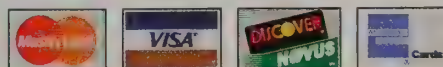
**P-212** 2-Outlet Cigarette Plug Adapter Enables two 12 volt accessories to be used from one outlet **\$6<sup>95</sup>**

### P-212B Dual Cigarette Socket

Enables two 12 volt accessories to be used from one outlet, comes with twin contact ears, with replaceable 15 strain relief and easy grip amp fuse..... **\$9<sup>95</sup>**



**P-212R** 2-Contact Cigarette Plug Solder type enables two 12 volt accessories to be used from one outlet, comes with twin contact ears, with replaceable 15 strain relief and easy grip amp fuse..... **\$1<sup>95</sup>**



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## BUSHNELL Professional Series Astronomical Telescopes

Bushnell® Professional Series of astronomical telescopes are engineered and assembled with unparalleled structural and optical quality. These top-of-the-line models will give the owner many long years of reliable, dependable use and a lifetime of journeys to the stars. This series is highlighted by its professional quality format including:

- Professional format 1.25" eyepieces • Aluminum optical tube assembly • High quality glass optic objectives • Full length heavy-duty variable height aluminum tripods • Clock drive ready deluxe metal equatorial mounting systems • Professional format 6x30 finderscopes • Six-point finderscope adjustment systems • All-metal accessory trays • Professional counterweight system • Fine adjustment controls.

**78-0040** 90mm Refractor • Focal Length: 1,000mm • Eyepiece K25 • Magnification: 40 • Features: 1.25" Optical Format, Kellner Eyepiece, Multi-coated Objective Lens, Flexible Fine Tracking Cables ..... **\$439<sup>95</sup>**  
**78-0200** 4.5" Reflector • Focal Length: 900mm • Eyepieces: K9, K25 • Magnification: 36, 72, 100, 200 • Features: 1.25" Optical Format, 9mm and 25mm Kellner Eyepieces, 2x Barlow Lens ..... **\$349<sup>95</sup>**



**VOYAGER**  
TELESCOPES



Bushnell Voyager® Series Engineered to exacting standards with exclusive features such as: The first astronomical zoom telescope • Penta mirror technology that yields right to left correct views of the night sky • High quality metal easy-track and metal equatorial mounts • Innovative adjustable aluminum tripods • Exclusive Rotary Power turret eyepieces.

**78-9440** 60mm Refractor • Focal Length: 700mm • Eyepiece 8,12.5 • Magnification: 56, 88, 168, 263, 280, 440 • Features: Penta Mirror, Easy Track® Mount, Adjustable Hardwood Tripod, Upgradeable to 1.25" Format, Barlow, Erecting Lens, Finderscope ..... **\$89<sup>95</sup>**

**78-9470** 60mm Refractor • Focal Length: 750mm • Eyepieces: Zoom, 8, 15 • Magnification: 50, 94, 50-150, 250, 470 • Features: Penta Mirror, Easy Track® Mount, Adjustable Hardwood Tripod, Upgradeable to 1.25" Format, Barlow, Finderscope, Zoom Eyepiece ..... **\$129<sup>95</sup>**

**78-9675** 4.5" Reflector • Focal Length: 900mm • Eyepieces: 4, 12, 20mm • Magnification: 45, 75, 135, 225, 675 • Features: Clock Drive Ready Equatorial Mount, Six-point Finderscope Mount, Upgradeable to 1.25" Format, Barlow, Finderscope, Fine tracking Controls, Counterweight ..... **\$229<sup>95</sup>**

Bushnell Voyager® Quality Dobsonian telescopes with all metal tube assemblies and innovative mounts will satisfy anyone just getting started or the advanced amateur astronomer. The compact reflector with unique cradle mount is convenient to use and transport.

**78-6000** 6" Reflector • Focal Length: 1200mm • Eyepiece: 25mm • Magnification: 48 • Features: Dobsonian Mount, Precision Rack and Pinion Focuser, 1.25" Format, 6x30 Finderscope, Six-point Finderscope Mount, Superior All-Metal Tube ..... **\$299<sup>95</sup>**

**78-8000** 8" Reflector • Focal Length: 1200mm • Eyepiece: 25mm • Magnification: 48 • Features: Dobsonian Mount, Precision Rack and Pinion Focuser, 1.25" Format, 6x30 Finderscope, Six-point Finderscope Mount, Superior All-Metal Tube ..... **\$399<sup>95</sup>**

**Accessories: (See Price Guide to match correct access. to correct telescope model)**

**78-0101** 1 1/4" format 9mm Kellner eyepiece .. **\$29<sup>95</sup>** **78-0105** 1 1/4" format 2x Barlow lens ..... **\$39<sup>95</sup>**  
**78-0102** 1 1/4" format 25mm Kellner eyepiece **\$29<sup>95</sup>** **78-0106** Clock drive (DC/battery power) ..... **\$89<sup>95</sup>**  
**78-0103** 1 1/4" format erecting prism ..... **\$69<sup>95</sup>**

## Perfect Gift for the Person with Everything!

AMATEUR ELECTRONIC SUPPLY  
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MILWAUKEE, WISCONSIN 53223  
(414) 358-0333

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## LOGSAT PRO Satellite Tracking Software

*If it Orbits the Globe Logsat Can Track it!*  
Track hundreds of satellites in Dozens of Windows

- KANSAS CITY TRACKER support
  - Complete multi-tasking – track satellites and print out satellite schedules while working on the DX cluster, etc.
  - An unlimited number of satellite windows can be opened at the same time
  - Voice Alarms when any satellite window becomes visible
  - 5 different map projections, high or low resolution for 486DX2 and Pentium PC's or slower 386's
  - 3D antenna radiation diagrams can be displayed
  - Detailed, context sensitive, on line help
  - Includes TSE - The Satellite Encyclopedia
- Minimum Requirements:** Windows® 3.1/95/NT compatible • Mouse or compatible pointing device • Standard keyboard • 286 processor • 4MB RAM • 15MB Hard Disk Space. **Optional:** PC Compatible Sound Card with Speakers • 486 with 32MB RAM for High Resolution Graphics • Kansas City Tracker Rotor Interface ..... **\$69<sup>95</sup>**



**GBIS18114AE** 1/8" Copper Entrance Ground Bar Kit Installs at the entrance to the ham shack where a short connection to the ground rod system can be made. Holds up to five PolyPhaser ISS0 type lightning impulse suppressor devices. Insulated stand-off brackets provide for attaching and insulating the ground bar from the mounting surface, eliminating the potential for multiple ground paths. Two terminal lugs and their hardware are included to accommodate grounding conductors, size range 1/0 stranded to #6 solid. A similar size grounding conductor should be installed from this ground bar to the ham station equipment desk ..... **\$27<sup>95</sup>**

**GP1868.78AE** 1/8" Copper Single Point Ground Panel Kit Provides single-point grounding and protection for two transmission lines and the rotor control cable. Installs either at the base of a tower or on the outside wall of the ham shack. For weather proofing it's sized to fit inside a NEMA-4X style box. Tapped holes and hardware are provided for mounting of a Polyphaser IC-RCT Rotor Control Protector and up to two IS-50 series coaxial protectors. Two sandwich plates and associated hardware are included for use with copper grounding straps to connect the panel to a ground system ..... **\$54<sup>95</sup>**

**GBIS18148AE** 1/8" Copper Station Ground Bar Kit Installs at the back of your operating desk. Allows grounding of individual station components to a common point to prevent multiple ground paths and dangerous "daisy-chains". Accepts a heavy ground conductor such as a copper strap or large diameter stranded wire which should be routed to the outside station ground or entrance ground bar. This kit includes two preassembled 12" heavy straps for transceivers or amplifiers and two lighter duty 1/4" straps for station accessories plus extra 1/4" strap and lugs for assembling additional straps as needed ..... **\$64<sup>95</sup>**

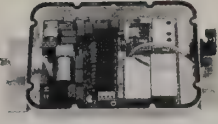
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**SECURE** web site

Order on-line at [www.aesham.com](http://www.aesham.com)



**ANTENNA TUNERS**



**ICOM**  
**AH-2B**

**AH-4 Automatic Antenna Tuner** Fully automatic – covers all amateur bands from 3.5MHz through 54MHz with a 23 ft. or longer wire antenna, or 7–54 MHz with optional AH-2b Antenna Element. Compact yet durable, it measures only 6.7" w x 2.7" h x 9" d for easy installation in a variety of locations – outdoors, on a back porch or in your vehicle. Weather-resistant construction, using rubber gasket seals, enables operation in all conditions. Handles 120W PEP, requires only 5–15W for tuning. Designed for use with ICOM HF transceivers. Just push the transceiver [TUNER] switch and the AH-4 automatically adjusts to the minimum SWR in less than 2.5-seconds. Up to 45 memory channels store settings to provide 1-second re-tuning. Supplied with mounting kit, 16 ft. control and coaxial cables, PL-259s. Requires 13.8 VDC. ..... **\$319<sup>95</sup>**

**AH-2B Antenna Element** Provides 7–50MHz mobile operation when used with the AH-4 antenna tuner. Includes a sturdy bumper mount, 8.2 ft. antenna and necessary hardware ..... **\$299<sup>95</sup>**

**MFJ-922 VHF/UHF Dual Band Antenna Tuner** Great for HTs, mobile rigs or amps up to 150W. Using the included tool, adjust your antenna system for a low SWR on VHF from 136-175MHz and UHF from 420-460MHz. Meter reads both SWR and power in two ranges: 60W or 150W. Only 4 x 2 x 1 1/4" – carry it in your car, on camping trips, etc ..... **\$79<sup>95</sup>**

**MFJ-945E Mobile Tuner** Covers 1.8 to 30 MHz, and rated at 300W PEP. Matches coaxial cable only. Extends mobile antenna bandwidth and eliminates having to stop and adjust the whip length when making frequency changes. Lighted Cross-Needle SWR bridge & Power meter with 50/300 and 5/30W ranges. 8" w x 2" h x 6" d ..... **\$99<sup>95</sup>**

**MFJ-941E Versa Tuner II** Covers 1.8 to 30 MHz and rated at 300W PEP. Matches everything! – coaxial fed dipoles, vees, whips, verticals, beams, random wires and balanced lines, has a built-in 4:1 balun. Lighted Cross-Needle SWR/Power meter with 300/50W and 30/5W ranges. Convenient 8-position antenna selector for 2 coax lines, random wire or balanced line or an external dummy load. 10 1/2" w x 2 1/2" h x 7" d ..... **\$109<sup>95</sup>**

**MFJ-934 Antenna Tuner/Artificial Ground** Makes a random wire an effective antenna. Combines the best features of the MFJ's 941E and 931 into one unit. A full-featured 1.8 to 30MHz, 300W antenna tuner with Cross-Needle meter and Ground Matching knob that lets you switch in inductance to bring an attached random length wire to a low impedance current point, forming an artificial ground. 10 1/2" w x 3 1/2" h x 7" d ... **\$159<sup>95</sup>**

**MFJ-948** Has all the features of the 941E but without the dummy load. Has larger lighted peak reading Cross-Needle SWR/Power meter ... **\$119<sup>95</sup>**

**MFJ-949E Deluxe Versa Tuner II** The same power, tuning and switching capability as the 941E. Has a larger, lighted peak or average reading Cross-Needle SWR/Wattmeter. PreTune™ feature allows off-the-air tune-up into built-in a 50 ohm dummy load. 10 1/2" w x 2 1/2" h x 7" d ..... **\$139<sup>95</sup>**

**MFJ-969 Deluxe Versa Tuner II** Covers 6 thru 160 meters and rated at 300W. Features a roller inductor coil with a spinner knob and 3-digit turns counter. Lighted peak or average reading Cross-Needle SWR/ Wattmeter with 30/300W ranges. Tunes coaxial cable, random wire or balanced feed-line, has a built-in 4:1 balun. QRM-Free Pre-Tune™ feature allows off-the-air tune-up into a built-in 50 ohm 300W dummy load. Convenient 8-position antenna selector. 10 1/2" w x 3 3/4" h x 9 1/2" d ..... **\$179<sup>95</sup>**

**MFJ-962D Versa Tuner III** Covers 1.8 to 30 MHz and rated at 1.5KW PEP. Matches coaxial fed antennas, random wire or balanced line, has a built-in 4:1 balun. Lighted peak or average Cross-Needle SWR/Wattmeter with 200/2000W ranges. Six position selector for two coax lines (direct or through tuner), random and balanced lines. 10 1/2" w x 3 3/4" h x 15" d **\$249<sup>95</sup>**

**MFJ-986 Differential-T Tuner™** Covers 1.8-30MHz & rated at 3KW PEP. Uses a broadband T-network w/roller inductor & differential capacitor. Tunes most antennas using only 2 knobs. Lighted peak or ave. reading Cross-Needle SWR/Wattmeter with 200/50W & 2000/500W ranges. Inductor spinner knob, 3-digit turns counter, 6-pos. antenna selector, external dummy load switch, 4:1 balun. 10 1/2" w x 4 1/2" h x 15" d ..... **\$299<sup>95</sup>**

**MFJ-989C Versa Tuner V** Covers 1.8 to 30 MHz and rated at 3KW PEP. Super duty Components. Matches nearly every type of antenna. Roller inductor with spinner knob and 3-digit turns counter. Lighted peak or average reading Cross-Needle SWR/Wattmeter with 200/2000W ranges. Built-in 50Ω 300W dummy load, 3KW 4:1 balun, six-position antenna selector and convenient flip-stand. 10 1/2" w x 4 1/2" h x 15" d ..... **\$319<sup>95</sup>**

**ALINCO**

**EDX-1 Auto Random Wire Antenna Tuner** Automatically matches an HF transceiver to a 8-80' random wire on the 80-10MHz bands, & 160 meters with min. length of 40'. Rated at 200W PEP input. Requires only 7–20W for tuning. Use for mobile, base or marine. Comes w/15' of coaxial & control cables for instant operation w/ALINCO DX-70/77. Also works with other HF radios. Requires 13.8V DC. .... **\$269<sup>95</sup>**

**EDX-2 Auto Antenna Tuner** Mates with DX-70/77 models. Tunes wire ant. 8-80'. Use for base, mobile or marine. Can be mounted outdoors ..... **\$319<sup>95</sup>**



**AMERITRON**  
**ATR-30 True Legal Limit™ Antenna Tuner** Covers 1.8-30MHz, incl. all MARS & WARC bands. Designed for sustained RF output of over 1500W CW and 3000W SSB, also 160m. Uses High-Q, high-current, edge-wound arc-free roller inductor w/super heavy-duty 500pF capacitor in T-match network. Matches nearly any type of ant. using either coax or balanced feedlines. Cross-needle peak-reading SWR/Wattmeter with 3000/300W ranges measures peak or average forward/reflected power plus VSWR, illum. Incl. 3-core choke balun, 6-position ant. switch & 6:1 vernier reduction drives, turns counter. Opt. ext. 12 VDC or internal 9V batt. required ..... **\$549<sup>95</sup>**

**VECTRONICS ANTENNA TUNERS**



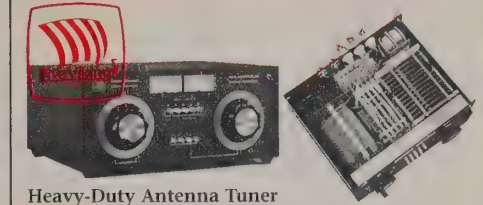
**VC-300M Mobile Tuner** (right) Compact, lightweight & economical for base or mobile use. Tunes verticals, dipoles, inverted Vs, beams & mobile whips fed by coaxial cable. Also tunes open wire feeders, balanced lines, or single wires. Covers 1.8 to 30 MHz at 300W continuous power. The dual-movement cross-needle meter simultaneously monitors RF power output & SWR. 7 1/2" w x 3 1/2" h x 8 1/2" d, 2 1/2 lbs ..... **\$99<sup>95</sup>**

**VC-300DLP Antenna Tuner** (left) A quality, economical tuner. Covers 1.8–30MHz at 300W continuous power capability from 3.5–30MHz & 150W on 1.8MHz. Built-in dummy load, dual-movement cross-needle peak or average reading meter. Compatible w/almost any antenna – coax fed, balanced or single wire. Built-in 4:1 balun & six-position antenna selector switch. 10 1/2" w x 9 1/2" d x 3 1/2" h, 3 1/2 lbs. **\$149<sup>95</sup>**



**VC-300D Antenna Tuner** (right) Same functions & specifications as the VC-300-DLP shown above, but has the additional capability to show a peak power indication by using an instantaneous responding digital bargraph meter display. A LEVEL and DELAY control has been added to calibrate the display to the meter, and to vary the delay response. .. **\$179<sup>95</sup>**

**HFT-1500 Antenna Tuner** (left) Rated for 1500W from 1.8 –30MHz; 1000W (2KW PEP) on 160 & 10M. Features a cranked continuous roller inductor with a turns counter and vernier tuning on the antenna and Input capacitors. The dual-movement cross-needle meter shows average forward and reverse power and SWR; a 21-segment bargraph indicates peak power. A true RF directional coupler sensor is used for the wattmeter circuitry. Includes a built-in 4:1 balun for balanced antenna systems and 6 position antenna selector switch. 5 1/2" w x 12 1/2" w x 12" d, 10 lbs ..... **\$399<sup>95</sup>**

















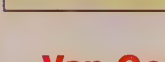
**Heavy-Duty Antenna Tuner**  
**MB-V-A** 1.8 to 30 MHz continuous tuning. Silver plated variable inductor with 25:1 vernier dial. 7kV variable capacitor and 15kV switch selected fixed output capacitors. Tunes most antennas. 1/4-wave length or longer from 40–2000Ω (some may not tune at 1.8 MHz). Automatic SWR metering without calibration. Separate automatically switched 300W/3KW RMS wattmeter. Quality 2 1/2" backlit meters continuously display SWR and power. Silver plated 5-position pushbutton antenna. switch selects four antennas: two coaxial, single wire and balanced line, and bypass. Trifilar-wound 3KW toroid balun provides balanced output from 200 to 1000Ω, and unbalanced output down to 20Ω. Requires 9V battery for meter and external 12VDC for meter lights. 14 1/2" w x 6 1/2" h x 12 1/2" d, 18 lbs ..... **\$879<sup>95</sup>**

**PALOMAR Engineers**  
**PT-340 Tuner-Tuner** Eliminate QRM, overheated final tubes and devices by adjusting your station antenna tuner without transmitting. Installs permanently between rig and antenna tuner. Just turn it on, and listen to the noise output in your receiver, then adjust your station tuner controls for a dip in the noise (a null). Covers 1.7 to 30MHz. Uses 9V battery. 6" w x 5" h x 3" d ..... **\$99<sup>95</sup>**

ANTENNA ACCESSORIES



## Coaxial Cable, Rotor, Antenna & Ground Wire

Belden number	RG-type	Dia. (in.)	Center conductor	Insulation type	Shield coverage	Jacket type	Imp. (Ω)	Vel. factor	Loss/100' 100 MHz
 <b>8201</b>	58/U	.193	#20 solid copper	Solid polyethylene	78% bare copper	PVC	53	66%	4.5 dB
 <b>8240</b>	58/U	.193	#20 solid tinned cop.	Solid polyethylene	95% tinned copper	PVC	53.5	66%	3.8 dB
 <b>8259</b>	58A/U	.193	#20 stranded tinned cop.	Solid polyethylene	96% tinned copper	PVC	50	66%	4.9 dB
 <b>8219</b>	58C/U	.193	#20 stranded tinned cop.	Cellular polyethylene	96% tinned copper	PVC	50	78%	4.5 dB
 <b>8262</b>	58/CU	.193	#20 stranded tinned cop.	Solid polyethylene	95% tinned copper	Non-contam. PVC	50	66%	4.9 dB
 <b>9258</b>	8/X	.242	#16 stranded copper	Cellular polyethylene	95% bare copper	PVC	50	78%	3.7 dB
 <b>8237</b>	8/U	.405	#13 stranded copper	Solid polyethylene	97% bare copper	PVC	52	66%	1.9 dB
 <b>8214</b>	8/U	.405	#11 stranded copper	Cellular polyethylene	97% bare copper	PVC	50	78%	1.8 dB
 <b>9913</b>	8/U	.405	#10 solid copper	Semi-solid polyethylene	100% foil + 88% braid	PVC	50	84%	1.3 dB
 <b>9913F*</b>	8/U	.405	#10 stranded copper	Cellular polyethylene	100% foil + 90% braid	PVC	50	83%	1.3 dB
 <b>9251</b>	8A/U	.405	#13 stranded copper	Solid polyethylene	97% bare copper	Non-contam. PVC	52	66%	2.2 dB
 <b>8267</b>	213/U	.405	#13 stranded copper	Solid polyethylene	97% bare copper	Non-contam. PVC	50	66%	2.1 dB
 <b>8241</b>	59/U	.240	#22 solid copper	Solid polyethylene	95% bare copper	PVC	73	66%	3.4 dB
 <b>8238</b>	11/U	.405	#18 stranded tinned cop.	Solid polyethylene	97% bare copper	PVC	75	66%	2.0 dB
 <b>8213</b>	11/U	.405	#14 solid copper	Cellular polyethylene	95% bare copper	PVC	75	78%	1.5 dB

### Rotor Cable

**8448** Standard duty, 8 wire. Consists of 6-#22 and 2-#18 tinned copper conductors. PVC insulation and PVC jacket. For run up to 100 ft.

**9405** Heavy duty, 8 wire. Consists of 6-#18 and 2-#16 tinned copper conductors. PVC insulation and PVC jacket. For runs over 100 ft.

**8484** Standard duty, 4 wire. Consists of 4-#20 tinned copper conductors. PVC insulation & jacket.

### Antenna & Ground Wire

**8000** #14 AWG (7x22), stranded bare copper-covered steel Antenna Wire.

**8018** #8 AWG (solid), soft annealed aluminum Ground Wire - multiples of 50'

See  
**BELDEN** in  
the Price  
Guide

## Van Gorden Engineering

### Ladder Line

**450Ω 100 ft** 18 ga. insulated ladder line..... **\$12<sup>95</sup>**  
**450Ω 100 ft** 14 ga. insulated ladder line..... **\$24<sup>95</sup>**  
**450Ω 1000 ft** 18 ga. insulated ladder line... **\$99<sup>95</sup>**  
**450Ω 1000 ft** 14 ga. insulated ladder line **\$199<sup>95</sup>**

### White Nylon Rope

**NR-100** 100 ft. roll, antenna guy rope ..... **\$4<sup>95</sup>**  
**NR-1,000** 1000 ft. roll, antenna guy rope..... **\$44<sup>95</sup>**

### N Connector

Male connector for Belden 9913 & 8214 coax.. **\$4<sup>95</sup>**

### AIM Coaxial Cable Stripper

For quick, clean preparation of coaxial cable without damage for installation of connectors. Simply insert coax into tool, turn clockwise 4 or 5 times.

**24-7735P** for RG-58, RG-59, RG-63 ..... **\$21<sup>95</sup>**  
**24-7736P** for RG-6, RG-59, 8281 ..... **\$21<sup>95</sup>**  
**24-7739P** for RG-8, RG-11, RG-213 ..... **\$28<sup>95</sup>**

### CASTLE RIDGE PRODUCTS, INC

### COPPERWELD® Antenna Wire

FORGE-WELDED makes the two metals inseparable!

### Solid bare copper-over-steel wire - the Best for antennas

Very strong, the steel core has very little stretch and long service life. The copper covering provides low RF resistance and is easy to solder. Choice of 12, 14 or 18 gauge; 100, 150, 250, 500 or 1000 ft. rolls.

<b>AN-122</b> 100 ft. #12.....	<b>\$24<sup>95</sup></b>	<b>AN-143</b> 150 ft. #14.....	<b>\$24<sup>95</sup></b>
<b>AN-123</b> 150 ft. #12.....	<b>34<sup>95</sup></b>	<b>AN-144</b> 250 ft. #14.....	<b>34<sup>95</sup></b>
<b>AN-124</b> 250 ft. #12.....	<b>49<sup>95</sup></b>	<b>AN-146</b> 500 ft. #14.....	<b>59<sup>95</sup></b>
<b>AN-126</b> 500 ft. #12.....	<b>89<sup>95</sup></b>	<b>AN-148</b> 1000 ft. #14.....	<b>104<sup>95</sup></b>
<b>AN-128</b> 1000 ft. #12.....	<b>149<sup>95</sup></b>	<b>AN-181</b> 250 ft. #18.....	<b>14<sup>95</sup></b>
<b>AN-142</b> 100 ft. #14.....	<b>19<sup>95</sup></b>	<b>AN-182</b> 500 ft. #18.....	<b>24<sup>95</sup></b>



**synthetic textiles, inc.**

**BLACK DACRON® POLYESTER ANTENNA ROPE**

Constructed of strong, double braid Dacron® Black for UV protection. Resistant to mildew & abrasion. Ties & cuts easily, sealing effectively w/hot knife.

• 100 ft. 1/2" **\$6<sup>95</sup>** • 350 ft. 3/8" **\$39<sup>95</sup>**

## Handy Preassembled Coaxial Hook-up Cables.



### AIM ELECTRONICS

**64-6UUP** 6' RG-58 w/PL-259s..... **\$4<sup>95</sup>**  
**64-9UUP** 9' RG-58 w/PL-259s..... **\$5<sup>95</sup>**  
**64-12UUP** 12' RG-58 w/PL-259s ..... **\$6<sup>95</sup>**  
**64-18UUP** 18' RG-58 w/PL-259s ..... **\$7<sup>95</sup>**

### BELDEN

**9349** 3' RG-58AU low-loss foam w/PL-259s **\$14<sup>95</sup>**  
**9350** 15' RG-58AU low-loss foam w/PL-259s **\$16<sup>95</sup>**  
**9352** 50' RG-58AU low-loss foam w/PL-259s **\$24<sup>95</sup>**  
**9354** 50' RG-8U low-loss foam w/PL-259s... **\$46<sup>95</sup>**  
**9355** 75' RG-8U low-loss foam w/PL-259s... **\$64<sup>95</sup>**  
**9356** 100' RG-8U low-loss foam w/PL-259s. **\$79<sup>95</sup>**

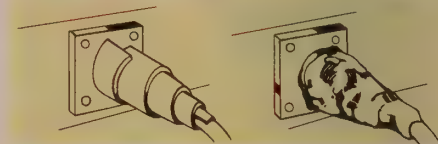
### VAN GORDEN

**8X-3ST** 3' RG-8X w/silver-teflon PL-259s ..... **\$8<sup>95</sup>**  
**8X-6ST** 6' RG-8X w/silver-teflon PL-259s..... **\$10<sup>95</sup>**  
**8X-12ST** 12' RG-8X w/silver-teflon PL-259s. **\$11<sup>95</sup>**  
**8X-25ST** 25' RG-8X w/silver-teflon PL-259s. **\$15<sup>95</sup>**  
**8X-50ST** 50' RG-8X w/silver-teflon PL-259s. **\$24<sup>95</sup>**  
**8X-75ST** 75' RG-8X w/silver-teflon PL-259s. **\$31<sup>95</sup>**  
**8X-100ST** 100' RG-8X w/silver-tef. PL-259s **\$37<sup>95</sup>**  
**213-3ST** 3' RG-213 w/silver-teflon PL-259s **\$11<sup>95</sup>**  
**213-6ST** 6' RG-213 w/silver-teflon PL-259s **\$14<sup>95</sup>**  
**213-12ST** 12' RG-213 w/silver-tef. PL-259s. **\$18<sup>95</sup>**  
**213-25ST** 25' RG-213 w/silver-tef. PL-259s. **\$28<sup>95</sup>**  
**213-50ST** 50' RG-213 w/silver-tef. PL-259s. **\$38<sup>95</sup>**  
**213-75ST** 75' RG-213 w/silver-tef. PL-259s. **\$54<sup>95</sup>**  
**213-100ST** 100' RG-213 w/sil.-tef. PL-259s **\$72<sup>95</sup>**

## Antenna, Coax & Connector Protection Products



Hand Moldable Plastic for Antenna Component Protection



**UNV 104** The quick and effective way to seal and protect all types of coaxial fittings, baluns, antenna parts and connectors. Simply wrap it on like regular tape, then mold it to any shape. It adheres tightly to metal, vinyl and polyvinyl coax outer jackets. Stays flexible and sealed at any temperature for years to resist moisture penetration and deterioration. Its permanent flexibility makes it possible to remove and re-install fittings, then re-seal just by re-forming the same material. Non toxic and non-contaminating Roll, 1/2" w x 60" ..... **\$2<sup>95</sup>**

### PENETROX® A

Recommended for use on aluminum to aluminum and aluminum to copper connectors, on bare conductors, and on bus bars. Good for all voltages. Assures high conductivity joint by sealing out air and moisture to prevent corrosion and reformation of oxide film. Apply to mating pieces of antenna components, tubing, etc. during assembly to provide a non-corrosive, low resistance and air tight seal. Makes disassembly at a later date a breeze..... (4oz bottle) **\$12<sup>95</sup>**



### CROSS DEVICE STUF Dielectric Water-proof Connector Filler - seals out moisture

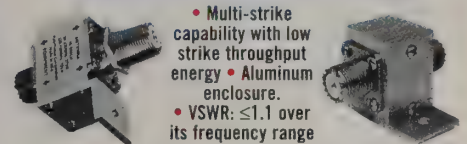
High purity macroscopic foam that dielectrically simulates the coaxial cable core. Fill coax connectors and tighten. The filler material hydraulically channels into all connector voids and points of moisture entry. Non-hardening, easy to removal No silicones, or other additives to harm coax cable material..... **CRS STUF** (tube) **\$4<sup>95</sup>**





PolyPhaser's Impulse Suppressors feature a hermetically sealed voltage sensitive gas tube. Additional components & unique design provide No DC Continuity with low loss to assure surge voltages & currents that form differentially on the coaxial cable are prevented from being shared by your equipment. 10 year Warranty.

**BROADBAND COAXIAL PROTECTORS**



**FLANGE MOUNT (right)**  
**IS-50UX-C0** Freq. Range: 1.5MHz-400MHz. Max. Power: HF 2KW, VHF 375W, UHF 125W ..... **\$61<sup>95</sup>**  
**IS-50UX-C1** Frequency Range: 50MHz to 700MHz. Maximum Power: VHF 375W, UHF 125W ..... **\$61<sup>95</sup>**  
**IS-50NX-C2** Range: 125MHz-1000MHz. Maximum Power: VHF 375W, UHF (low) 125W, 800MHz to 1 GHz 50W. Type-N connectors ..... **\$61<sup>95</sup>**  
**BULKHEAD MOUNT (left)**  
**IS-B50LU-C0** Frequency Range: 1.5MHz-400MHz. Max. Power: HF 2kW, VHF 375W, UHF 125W **\$64<sup>95</sup>**  
**IS-B50LU-C1** Frequency Range: 50MHz-700MHz. Max. Power: VHF 375W, UHF 125W ..... **\$64<sup>95</sup>**  
**IS-B50LN-C2** Range: 125MHz to 1000MHz. Maximum Power: VHF 375W, UHF (low) 125W, 800MHz to 1 GHz 50W. Type-N connectors .. **\$64<sup>95</sup>**













**IS-RCT (left)** Provides lightning protection for rotor controllers, motors, control box and other nearby equipment. EMP rated - faster than other gas tubes with lower turn-on voltage. Water tight enclosure with mounting stud. 7 1/2" h x 3 1/4" w x 2 1/2" d ... **\$54<sup>95</sup>**  
**IS-SPTL (right)** Multi-stage protection, with large bandwidth and fast response time, EMP rated. For telephone trunk lines - handles standard ring voltages up to 105Vrms and surges up to 36kA ... **\$57<sup>95</sup>**



**IN-LINE PHONE LINE PROTECTOR**  
**IS-SPTL (right)** Multi-stage protection, with large bandwidth and fast response time, EMP rated. For telephone trunk lines - handles standard ring voltages up to 105Vrms and surges up to 36kA ... **\$57<sup>95</sup>**



**POWER LINE EXTENSION PROTECTOR**  
 In-line, multi-stage EMP rated protectors provide multi-strike power line protection, filtering and proper grounding when equipment use requires extension cord. Two outlets, master on/off switch, and a circuit breaker for added protection. All aluminum grounded enclosure, 4 3/4" wide.  
**IS-PLDO-120-15A** 15 ft. cord, 120V @ 15A **\$172<sup>95</sup>**  
**IS-PLDO-120-20A** 6 ft. cord, 120V @ 20A.. **\$215<sup>95</sup>**  
**GROUNDING PANEL**  
**CU-SPGP** A .062" thick copper plate mounted on a melamine covered particle board. For mounting protectors & establishing a single grounding point for all station equipment. Comes with concrete anchors, mounting screws, two rolls of 10' x 1 1/2 inch copper grounding strap & 2 copper sandwich bars for the strap. 18" w x 12" h, 16" on center mount ..... **\$69<sup>95</sup>**  
**LOW INDUCTANCE COPPER STRAP**  
 Strap has an advantage over wire when used for grounds because it has lower inductance and cannot be fused open by lightning. 1 1/2 inch strap has a lower inductance than #2 stranded wire. Easy to cut and solder, usable above or in-ground, 26 AWG thickness. Available in 1 1/2, 3 & 6" widths; 25, 50, 75 or 100' rolls ... **See Price Guide**

LEADS		2m/440	2m/220	440/1200	HF/6 to 440
	No	COMET CF4160K DIAMOND MX72D MFJ 916	DIAMOND MX214D	<div><b>DUPLLEXERS</b></div> 	
	No	COMET CF4160I			
	No	COMET CF4160J LARSEN AD2/70 VALOR D270			
	Yes	COMET CF416A COMET CF530 DIAMOND MX72H	COMET CF142 DIAMOND MX214		COMET CF360A <b>HF to 6/2m</b> COMET CF706 DIAMOND MX62M
	Yes	DIAMOND MX72N YAESU AD3			
	No	COMET CF416C COMET CF416W		COMET413B COMET 416W	
	Yes			COMET CF4130A DIAMOND MX37	
	Yes			COMET CF413A	
	Yes				COMET CF360B

For duplexer/triplexer Prices see the Price List under the respective manufacturer

LEADS		HF/6/2/440/1200	6/2/440	2/220/440
	No	COMET CFX4310B (also covers 900MHz range)	<b>TRIPLEXERS</b> 	
	No	COMET CFX4310C DIAMOND MX3000D		
	Yes	DIAMOND MX2000	COMET CFX324A COMET CFX514	COMET CFX324A DIAMOND MX324
	No		COMET CFX5140 DIAMOND MX2000D	COMET CFX324D
	Yes	COMET CFX431B DIAMOND MX3000		
	Yes	COMET CFX431A DIAMOND MX3000N		
	No		COMET CFX5145	

**DC SALES**  
 Tenna Hitch A heat treated, high strength aluminum bracket with an insulated 3/8" x 24 mounting stud. Installs under the ball of any Class-I or II trailer hitch. Handles the largest mobile antennas, and does not interfere with trailer towing capability. No holes to drill. All hardware is supplied..... **\$35<sup>95</sup>**

**Oak Bay Technologies**  
**AM-101B** Rubber Duck Window Mount Improves mobile HT performance - rids car of RF. Great for emergencies, rental cars, etc. Stainless steel bracket slips on top edge of window, rubber duck attaches to BNC mount outside. Comes w/6' of RG-174U coax w/BNC connector. Rated 15W **CLOSEOUT \$24<sup>95</sup>**



## MFJ MFJ ENTERPRISES, INC. COAXIAL SWITCHES

**1702C** Antenna Switch Two positions plus center ground, 50 ohms. Rated to 500MHz with <0.2dB loss, 2.5KW PEP or 1 KW CW. >60dB isolation @ 300MHz or >50 dB @ 450MHz. Unused terminal automatically grounds for lightning protection ..... **\$21<sup>95</sup>**

**1702CN** Lowest loss on UHF. Uses Type N connectors which are good up to 1.1 GHz ..... **\$31<sup>95</sup>**

**1704** Antenna Switch Four positions, plus center ground. 50Ω, rated to 500MHz with <0.2dB loss. Handles 2.5KW PEP, 1KW CW, >50dB isolation @ 500MHz. Includes a replaceable lightning protection device..... **\$59<sup>95</sup>**

**1704N** with Type N's ..... **\$69<sup>95</sup>**

### 1701

#### Antenna Switch

Six positions, for 50-75Ω systems. Rated for 2KW PEP or 1KW CW from 1.8-30MHz. Unused positions are grounded for lightning protection. 10" w x 3" h x 1 1/2" d ..... **\$49<sup>95</sup>**

### 1700B

#### Antenna & Transceiver Switch

Select up to six antennas and six rigs in any combination - tuner, SWR meter, linear, etc. Can be left in line to operate w/any combination. 50 or 75Ω. Handles 2KW PEP or 1KW CW from 1.8-30MHz. Unused positions are automatically grounded for lightning protection. 10" w x 3" h x 1 1/2" d ..... **\$79<sup>95</sup>**

### 270 Lightning Surge

Protector Safeguard your ham gear from damage due to dangerous static charges and lightning induced surges. Replaceable ultra-fast gas discharge tube safely shunts up to 5000 amps of peak impulse current to an independent ground. Rated to 400W PEP, usable up to 1000MHz ... **\$29<sup>95</sup>**

### ANTENNA MOUNT

#### 310 HT Antenna Window Mount Clip

Your HT rubber duck antenna radiates poorly inside your car due to the shielding effect of the roof, doors, etc. Detach the duck from your HT and install on this handy BNC window mount clip. It holds your antenna securely on the outside of your car's window where it can radiate freely. It's quick and easy to install and remove. Comes with 10 ft. feet of flexible mini-coaxial cable..... **\$14<sup>95</sup>**



### WA1FFL

#### Ladder-Loc Center Insulator & Support

Provides a convenient means of attaching 450Ω ladderline to various dipole antennas. This sturdy support minimizes feedline flexing at the antenna feed-point and ensures a long lasting, trouble-free installation. A top attachment point is provided for attaching a center support rope. UV stabilized for long life ..... **\$12<sup>95</sup>**



### COMET

#### WS-1M Window Mounting Bracket

Perfect for vehicles with pop-out windows, rental cars, etc. Adjustable, with suction cups on the inside and outside. Includes 11 ft. of coaxial cable with connectors. Heavy-duty, allows for mounting gain-type antennas such as the Comet B-20 or Comet SB-5 dualbander models, etc ..... **\$64<sup>95</sup>**

## AMERITRON Remote Controlled Switches

**RCS-4** Select up to 4 different HF antennas while using just one coaxial feed line, and no additional control cable is required. The weatherproof switch box locates out on the tower, mast or other remote location. The control box locates at your operating position and switches antennas with a control voltage routed directly through the coaxial cable. 1.8-30MHz, 2KW **\$129<sup>95</sup>**

**RCS-8V** Independently or simultaneously select up to 5 different antennas using just one coaxial feedline and 8-wire control cable. Internal wiring allows user to ground or float unused terminals as required. 5KW below 30MHz, and 1KW up to 150MHz..... **\$139<sup>95</sup>**

## DAIWA Industry Co., Ltd.

**CS-201** Two Position Coaxial Switch (right) A high quality coaxial switch with excellent high frequency RF characteristics due to cavity and heavy diecast metal construction. Frequency range up to 600MHz with less than 0.12 VSWR, less than 0.2dB insertion loss & 60dB isolation between terminals. Rated at 2.5 KW PEP or 1KW CW. Auto grounding of unused terminals, SO-239 connectors ..... **\$29<sup>95</sup>**

**CFS-401** 4-Position Coaxial Switch (left) Same features as CS-201, but rated to 800MHz ... **\$129<sup>95</sup>**

## AMECO

**PT-3** Preamplifier Covers 160 to 6m, useable with either a receiver or transceiver. Tunable low noise dual-gate FET circuit provides >20dB gain, low N.F. and improved spurious and image rejection. RF sensed switch with variable delay automatically bypasses to antenna on transmit. Second rcvr or ant. capability. 12V DC. or use P-12T AC adapter (**\$9<sup>95</sup>**) 2 1/2" h x 8 3/4" w x 6 1/2" d ..... **\$124<sup>95</sup>**

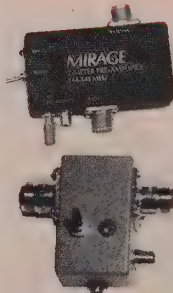
### TPA Tunable Preamplifier/Active Antenna



Use as a preamplifier to improve the gain of a receiver, or as an indoor active antenna. Covers 0.22 to 30MHz in 5 bands. A dual-gate FET device provides an excellent N.F. and >20 dB gain. As a preamplifier, the input matches most antennas; long wire, 300Ω and random lengths. When no external antenna is available, the preamplifier's built-in 30" collapsible whip gives great results. Uses 9V battery or PT-9T AC adapter (**\$9<sup>95</sup>**). 1 1/2" h x 8" w x 6 1/2" d ..... **\$76<sup>95</sup>**

## MIRAGE

GaAsFET Preamps for 10, 6, 2, 1 1/2 m & 70 cm



High Gain, Ultra Low Noise GaAs FET preamps improve weak reception by providing from 15-25dB of receive gain with a N.F. of <0.6dB.

In-line design w/auto transmit & receive switching for up to 160W throughput. Choose in-shack model (KP-1), or mast mount model (KP-2) providing added benefit of reducing feedline loss.

10 different models - See Mirage in the Price Guide



## UNADILLA

### REYCO W2VS Antenna Traps



Add these traps to your dipole for multiband operation on two to six bands. For example; add the 40 meter pair (KW-40) and get 40 and 80 meter operation. For 10, 15, 20, 40, 80 and 160 meters, add all five pairs - 33 combinations! Selecting traps is easy. Just list the bands you want to cover, listing the highest frequency band first. You will need a pair of traps for each band except the one with the lowest frequency. Cost/pair.

**KW-80CW** 80m CW **\$48<sup>95</sup>** **KW-17** 17 meters .... **\$41<sup>95</sup>**  
**KW-80F** 80m phone **\$48<sup>95</sup>** **KW-15** 15 meters .... **\$41<sup>95</sup>**  
**KW-40** 40 meters .... **\$42<sup>95</sup>** **KW-12** 12 meters .... **\$41<sup>95</sup>**  
**KW-30** 30 meters .... **\$42<sup>95</sup>** **KW-10** 10 meters .... **\$41<sup>95</sup>**  
**KW-20** 20 meters .... **\$41<sup>95</sup>**

### W2AU Ferrite Baluns



Smooth transition from unbalanced coaxial transmission line to balanced antennas such as dipoles, quads & yagis. Produces proper current distribution resulting in reduced feedline radiation for maximum power transfer, gain & reduced TVI/BCI. Replaces center insulator, DC grounded for lightning protection and has a convenient center eye hook for support. Usable from 1.8 to 40MHz, 2KW PEP.

**1:1 or 4:1 ratio or 1:1 Beam Balun** .... ea. **\$24<sup>95</sup>**

### W2DU Non-Transformer Choke Baluns

A high efficiency, transformerless 1:1 balun. The HF model is the only one available that works on 160 meters! They all handle a VSWR up to 5:1 at the legal power limit, allowing use with antenna tuners. The VHF model eliminates the usual rod and tube hardware balun assembly normally used at those frequencies.

Order model **HF** for 1.8 to 30MHz, **VHF** for 30 to 250MHz or **Beam Balun** for 40 to 10M ... ea. **\$26<sup>95</sup>**



## CENTAUR ELECTRONICS

### High Performance Baluns

- State-of-the Art • 0.5 to 50MHz performance with advanced toroidal transformer • 3KW SSB rated • Extended performance in hostile environments • Stainless steel hardware • Heavy-duty body materials • Military grade internal components • 3" x 7"

**B11W10-50** 1:1, dipole **\$49<sup>95</sup>** **B41LW10-50** 4:1, ladderline  
**B11Y10-50** 1:1, yagi... **\$49<sup>95</sup>** to coaxial cable ..... **\$64<sup>95</sup>**  
**B41Y10-50** 4:1, yagi... **\$64<sup>95</sup>**

## Van Gorden Engineering

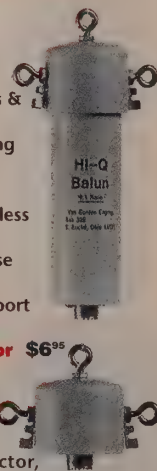
### Hi-Q Balun \$14<sup>95</sup>

- 1:1 or 4:1 impedance ratio for matching unbalanced coaxial cable to balanced antennas.
- For dipoles, yagis, inverted vees & doublets • Weatherproof
- Covers 3 to 40MHz, 1.5kW rating
- Replaces center insulator
- Reduces feedline radiation for more power into antenna, and less TVI & BCI problems.
- Built-in DC ground reduces noise and protects against lightning.
- SO-239 connector, center support eye hook.

### Hi-Q Antenna Center Insulator \$6<sup>95</sup>

- Insulator only, no balun
- Replaces egg-type center insulator
- Small, rugged, lightweight, weatherproof, SO-239 connector, center supporting eye hook.

**Antenna End** End insulators..... pair **\$4<sup>95</sup>**  
**Dog Bone** Antenna insulators..... each **95¢**





# Lightning & Surge Protection



**P**olyPhaser Corporation's coaxial impulse suppressors are a unique line of patented products. Hermetically-sealed voltage sensitive gas tubes are used with additional components to assure that surge voltages and currents formed differentially on the coax are not conducted to the equipment input. There is no dc continuity from center pin to center pin on our dc blocked protectors.

Other gas tube protectors have dc continuity through their center pins and share the energy with the equipment before the gas tube turns on. *Quarter wave stub protectors* are also dc coupled devices. There is dc continuity between their center pins and the equipment input.

A PolyPhaser dc blocked protector only lets through our rated specification (low milli-, or microjoules). Peak voltage let-through is also significantly less than dc continuity protectors. PolyPhaser's measured let-through energy and voltage is the industry's lowest.

- Multi-strike capability with low-strike throughput energy
- Aluminum enclosure
- VSWR:  $\leq 1.1$  over its frequency range

## ● FLANGE MOUNT

**IS-50UX-C0** Frequency Range: 1.5MHz to 400MHz;  
Max. Power: HF 2kW, VHF 375W, UHF 125W

**IS-50UX-C1** Frequency Range: 50MHz to 700MHz;  
Max. Power: VHF 375W, UHF 125W

**IS-50NX-C2** Frequency Range: 125MHz to 1000MHz;  
Max. Power: VHF 375W, UHF (low) 125W,  
800MHz to 1GHz 50W. Type N connectors

## ● BULKHEAD MOUNT

**IS-B50LU-C0** Frequency Range: 1.5MHz to 400MHz;  
Max. Power HF 2kW, VHF 375W, UHF 125W

**IS-B50LU-C1** Frequency Range: 50MHz to 700MHz;  
Max. Power VHF 375W, UHF 125W

**IS-B50LN-C2** Frequency Range: 125MHz to 1000MHz; Max.  
Power VHF 375W, UHF (low) 125W, 800MHz to  
1GHz 50W. Type N connectors

## ● ROTOR CONTROL PROTECTOR

**IS-RCT** Provides protection for rotor controllers, motors, control box and other nearby equipment. EMP rated faster than other gas tubes with mounting stud. 7.5" h x 3.25" w x 2.5" d.

## ● IN-LINE PHONE LINE PROTECTOR

**IS-SPTL** Multi-stage protection, with large bandwidth and fast response time. EMP rated. For telephone trunk lines — handles standard ring voltages to 105Vrms. Handles surges up to 36kA.

## ● POWER LINE EXTENSION PROTECTOR

In-line, multi-stage EMP rated protectors provide multi-strike power line protection, filtering, and proper grounding when equipment use requires an extension cord. Two outlets, master on/off switch, circuit breaker for added protection. All aluminum-grounded enclosure. 4.25" wide.

**IS-PLDO-120-15A** 15' cord, 120V @ 15A

**IS-PLDO-120-20A** 6' cord, 120V @ 20A

## ● GROUNDING PANEL

**CU-SPGP** A .062" thick copper plate mounted on a painted 1/2" plywood backing. Mounting protectors & a single ground point established for station equipment. Comes with concrete anchors, all mounting screws, 10' of 1.5" copper grounding strap, 2 brass sandwich plates, and joint compound. 18" w x 12" h; 16" d center mount.

## ● LOW INDUCTANCE COPPER STRAP

Copper strap has an advantage over wire when used for grounds, as it has lower inductance, and cannot be fused open by lightning. For example: 1.25" strap has a lower inductance than #2.0 stranded wire. It's easy to cut, solder, etc. Usable above or in-ground applications. 26 AWG thickness (0.0159"). Available in 1.5, 3 & 6 inch widths, and 25, 50, 75 or 100 foot rolls.

**PolyPhaser®**  
CORPORATION

A SMITHS INDUSTRIES COMPANY

www.polyphaser.com

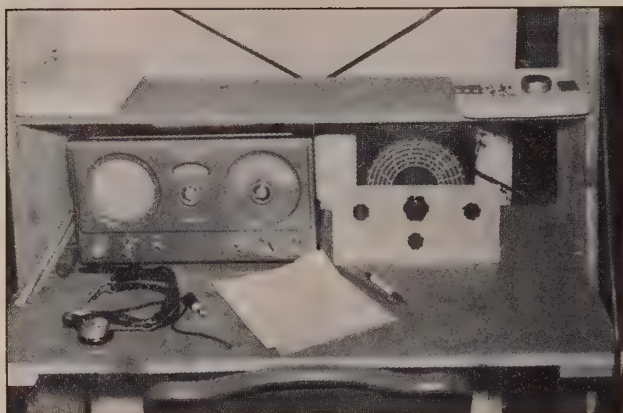


## Don Tyrrell, W8AD sez...

*"During my 50 years in Amateur Radio, almost everything has changed — technology, world affairs, people, business and more."*

One of the most important things I've learned about business over all those years, both as a customer and a designer/manufacturer, is this: If you produce the best products you can, with the highest quality, fair pricing and excellent customer service, everything else will take care of itself. That's one philosophy that doesn't change at Alpha Delta!

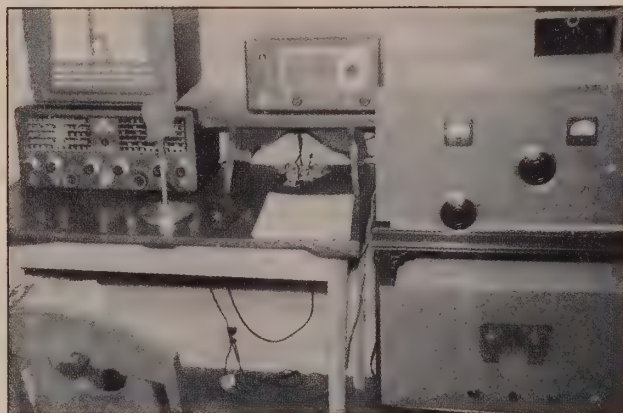
**Don, W8AD, ex-W9JTN**  
Owner – Alpha Delta Communications, Inc.



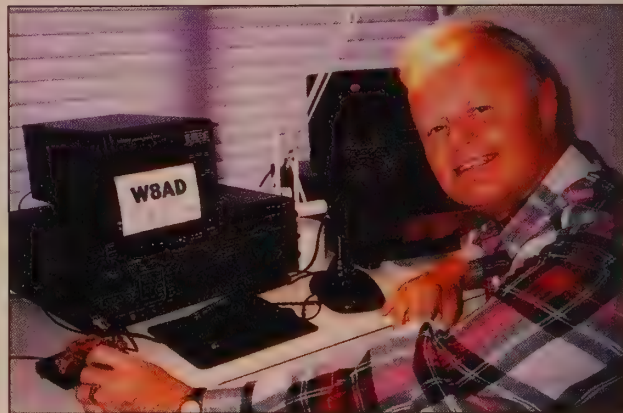
**W9JTN's first SWL set-up in 1948**  
National NC-33 Receiver, RME DB-23 preselector,  
50 ft. long wire



**Don, W9JTN – 1951**  
Hammarlund HQ-129X, Hallicrafters HT-18  
(10W NBFM), 10 & 40 meter folded dipoles



**W9JTN – 1952**  
Hallicrafters SX-71, Hallicrafters HT-18,  
Homebrew 814s (250W), 40 meter folded dipole



**Don, W8AD – 1999 (Phoenix, AZ)**  
Yaesu FT-1000/Quadra Amplifier, Kent Paddle, VRC  
Console, Outreach 500/Outpost.

*From desk-top 10 watter to desk-top kW,  
we are still committed to YOU with con-  
tinued R&D into accessories for your  
Hamshack...*

**Lightning Protection Devices**  
**Coaxial Switches • Base & Mobile**  
**Antennas • Hardware • Keyer paddles**



right:  
Don and Ray, K9KHW  
on 1998 Ontario  
Fishing trip

left:  
Don showing off his  
big Northern Pike







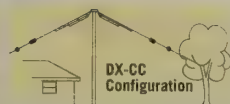
## Solving your Antenna and Lightning Problems

### Limited Space High Performance Antennas

Unlike the usual trap antenna, there are no capacitors to break down under high RF voltages. "ISO-RES" inductors and #12 insulated solid copper wire tolerate full-legal power. Uses direct 50Ω coax feed; tuner usually not required when operating in resonant bands, but recommended for multi-band operation.



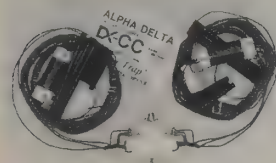
- NO-TRAP DESIGN
- STAINLESS STEEL HARDWARE
- FULLY ASSEMBLED
- SEVERE WEATHER RATED



**DX-A** 160-80-40 Meter 1/4-wave Twin Sloper A top low frequency DX antenna. Combines the tremendous DX firepower of the 1/4-wave sloper with the wide bandwidth of the 1/2-wave dipole. One leg is 67 ft., the other 55 ft. Installs like an Inverted-V with ground return accomplished thru tower or down-lead.. **\$59<sup>95</sup>**

**DX-B** 1/4-wave DX sloper Single wire, high performance on 160, 80, 40 & 30M. For limited space where you can't use the DX-A. Requires only 60 ft. overall and provides amazing DX performance at heights of only 35 ft., and with the low end at only 8 ft. Utilizes stainless-steel hardware, #12 solid copper wire and efficient Alpha Delta "Iso-Res" RF choke coils. To gain the same broadbanded performance like the DX-A, the DX-B is also designed to be used with a wide range antenna tuner, so no trimming or tweaking is necessary. Has a 50Ω coax feed, rated for full legal power. Pre-assembled, pre-tuned. .... **\$69<sup>95</sup>**

**DX-SWL** SWL Broadcast Sloper Covers the 13, 16, 19, 21, 25, 31, 41, 49, 60, 90, and 120M short-wave bands plus the AM broadcast band. Sloper design provides outstanding reception of low-angle DX signals. Multi-band 2KW transmit capability with an appropriate antenna tuner. Overall length is 60 ft. .... **\$79<sup>95</sup>**



Dipoles use the DELTA-C Hardware Kit

**DX-CC** "No-Trap" 80-40-20-15-10 meter dipole or inverted-V Overall length - 82 ft. .... **\$119<sup>95</sup>**

**DX-DD** "No-Trap" 80 & 40 meter dipole or inverted-V Overall length - 82 ft. .... **\$89<sup>95</sup>**

**DX-EE** "No-Trap" 40-20-15-10 meter dipole or inverted V Also covers 30, 17 & 12 meters using an antenna tuner. Overall length - 40 ft. .... **\$99<sup>95</sup>**

#### DX-Series

#### Monoband Dipoles

These full-size dipoles utilize the Delta-C Center Insulator with built-in Arc-Plug® Surge Suppressor. Fully assembled using #12 insulated high-strength solid copper wire, CIN end insulators and 50 ft. nylon of support rope. Use with coaxial cable or open-line, rated for legal power.

**DX-80** For 3.5 MHz (75-80M) - 133 ft. long **\$49<sup>95</sup>**  
**DX-40** For 7 MHz (40M) - 66 ft. long **\$39<sup>95</sup>**  
**DX-20** For 14 MHz (20M) - 33ft. long **\$39<sup>95</sup>**

### Transi-Trap® Surge Protectors



Transi-Trap Surge Protectors are gas surge arresters which can protect your valuable Ham equipment much more effectively than the lower cost air-gap types. Full UL listing for safety and protection.

The heart of the unit is an Arc-Plug™, which consists of two electrodes hermetically sealed in a gas filled ceramic cylinder. Acting like a voltage dependent switch, it can repeatedly carry large currents for brief periods of time. When a voltage surge occurs on your transmission line, an arc forms between the electrodes allowing it to conduct harmlessly to an independent ground, reducing feedline voltage to less than 30V.

Since 1981, Transi-Traps have been the choice of the U.S. Military, and government agencies, worldwide. Transi-Traps are designed for 50Ω coaxial cable and are available with standard SO-239 connectors or N-type connectors which extend operation through 1 GHz.

Transi-Trap Second Generation models offer extremely low-loss performance thru 2500MHz, depending on model and connector styles, and have convenient ground stud hardware for direct mounting to a bulkhead, ground strip or ground wire.

<b>RT/2G</b> 200W, UHF connector.....	<b>\$39<sup>95</sup></b>
<b>RT-N/2G</b> 200W, N connector.....	<b>46<sup>95</sup></b>
<b>HV/2G</b> 2KW, UHF connector.....	<b>44<sup>95</sup></b>
<b>HV-N/2G</b> 2KW, N connector.....	<b>49<sup>95</sup></b>
<b>LT</b> T-type 200W thru 30MHz.....	<b>29<sup>95</sup></b>



**DX-LB** Low Band Dipole Covers 160-80-40 meters with an overall length of only 100 ft. Antenna performance and 2:1 VSWR bandwidth is site dependent and varies with height above ground and surrounding objects. The typical bandwidth is:

160M - 20kHz • 80M - 40 kHz • 40M - 300 kHz  
 Full band coverage can be accomplished with an antenna tuner. Built with insulated #12 wire, stainless steel hardware and uses the Model DELTA-C static protected center insulator and CIN end insulators. Use coax or open wire line and configure as a dipole or inverted-V. Assembled and ready to go! .... **\$119<sup>95</sup>**

**DX-LB PLUS** Low Band Dipole Covers 160-80-40-20-15-10M - overall length 100 ft. .... **\$149<sup>95</sup>**



**DX-ULTRA** Shortwave Dipole Antenna Covers AM Broadcast through 30MHz. Provides efficient, low-noise, broadband performance for Medium Wave, Tropical, International SW, Military, Government, Embassy, Maritime, Aircraft, Commercial and Utility frequencies. ISO-RES inductors, parallel wire elements and the exclusive DELTA-C Center Insulator with the built-in ARC-PLUG® Static Electricity Protector. Over all length is 80 ft.; may be installed as a dipole, inverted-vee, or full sloper. It can be used with an antenna tuner as a transmit antenna up to 2kW. Connectors will accept either coaxial cable or balanced line. Fully assembled, ready to go! .... **\$119<sup>95</sup>**

### Lightning Surge Protected 2 & 4 Position Coax Switches



Alpha Delta Coaxial Antenna Switches are made only in the U.S.A. The extremely high quality custom design features a cast housing with a constant impedance micro-strip cavity for outstanding performance through UHF. No lossy wafer switches are used, and a solid positive detent roller bearing switch drive leaves no-doubt to which position is selected. The unused antenna circuits are automatically grounded to reduce antenna interaction, noise and the effects of lightning. For the antenna circuit that is in use, the famous replaceable Alpha Delta Arc-Plug™ Cartridge provides continuous protection. Antenna switched in or out, you're well protected both ways! The Arc Plug is easily accessed through front panel so you may permanently mount the switch to any surface. Both the two and four position models handle full legal power.

**DELTA-2** 2-position coaxial switch w/SO-239 connectors, rated for up to 500MHz ..... **\$49<sup>95</sup>**

**DELTA-2/N** 2-position coaxial switch with N-type connectors, rated for up to 1.3GHz. **\$64<sup>95</sup>**

**DELTA-4** 4-position coaxial switch with SO-239 connectors, rated for up to 500MHz **\$79<sup>95</sup>**

**DELTA-4/N** 4-position coaxial switch with N-type connectors, rated for up to 1.3GHz. **\$89<sup>95</sup>**

### Antenna Hardware Kit



Don't assemble your next dipole antenna without one of these CENTER and END insulator combos. They're designed for strength, and to provide equipment protection with a built-in replaceable SEP Arc-Plug® Static Electricity Protector. Ideal for dipoles, Vees, zepps and all kinds of SWL receive antennas. Feeds with either coax or balanced line. Rated for full legal power.

The SEP Arc-Plug protector which is mounted in the DELTA-C center insulator "bleeds off" slow rising static electricity charges routing them harmlessly to ground, before they can enter the shack thru the feedline. This is far more effective than DC grounded baluns or chokes, which can be "popped" by static charges. Dangerous static charges are developed from thunderstorms, high wind driven snow or desert sand, and have been measured to 1,000's of volts; so potent, they can puncture the dielectric of unterminated coax.

The DELTA-C Center Insulator and DELTA-CIN end-insulators are fabricated with an extremely rugged UV and RF resistant DELTALLOY material that is so tough, you can drop it off a roof without damage. Don't rely on fragile ceramic or glass insulators! Only stainless steel hardware used in the center insulator for salt air and other corrosive environments, and all internal connections are hard soldered.

**DELTA-C** Antenna hardware kit Contains DELTA-C Center insulator, (2) end-insulators and a SEP ARC-PLUG Protector ..... **\$29<sup>95</sup>**

**DELTA-CIN** End-insulators (separate). ea. **\$1<sup>95</sup>**



# OUTbacker

HF Mobile Antennas

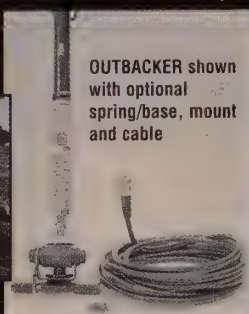
**Performance plus Convenience...**



Whether mobile...



or backpack portable!



OUTBACKER shown with optional spring/base, mount and cable

- OUTBACKER PERTH**
- OUTBACKER PERTH PLUS**
- OUTBACKER 8**
- OUTBACKER HP**
- OUTBACKER SPLIT**
- OUTBACKER TRI-SPLIT**
- OUTBACKER MARINER**
- OUTBACKER STEALTH PLUS**
- OUTBACKER Spring/Base**
- OUTBACKER OB-360**
- DIAMOND K-4003/8C**
- DIAMOND C-110**

**Description**

- 75-10M + WARC's, 150W P.E.P. • 7.5 ft. tall • 3.5 ft. stinger retracts into the 4 ft. mast for garaging .....
- 75-10M + 6 & 2M • 6 ft. tall • Perfect for HF + VHF radios: IC-706, DX-70T, FT-100, etc. ....
- 75-10M, 300W P.E.P. • 6 ft. tall .....
- 75-10M • HIGH POWER (rated at 500W P.E.P.) • 6 ft. tall .....
- 75-10M, 300 W P.E.P. • 6 ft. tall • Breaks down into (2) 3 ft. sections, comes with carrying pouch .....
- Same as OUTBACKER SPLIT except breaks down into 3-2 ft. sections, storage pouch included .....
- Covers ITU Marine: 2.182, 4.1, 6.2, 8.2, 12.4, 16.5, & 22.1MHz and Ham bands: 75, 40, 20, 17 & 10M ..
- 75-10M + 6 & 2M • 4 ft. tall, 150W PEP • Perfect for use w/HF + VHF radios: IC-706, DX-70T, FT-100..
- HEAVY DUTY • Nickel/zinc plated • 3/8-24 threads • SO-239 connector • Requires 1/2" mtg. hole .....
- Trunk lip mount with spring for Perth/STPlus/Perth Plus .....
- Diamond 3/8" x 24 thread trunk-lip mount with 6 ft. coaxial cable for all OUTBACKER models .....
- Diamond 10 ft. extension cable for K-400-3/8C trunk-lip mount.....

AES Model #	Price
<b>Perth</b>	<b>\$289<sup>95</sup></b>
<b>Perth Plus</b>	<b>\$299<sup>95</sup></b>
<b>OB-8</b>	<b>\$279<sup>95</sup></b>
<b>OB-8HP</b>	<b>\$299<sup>95</sup></b>
<b>OB-S8</b>	<b>\$299<sup>95</sup></b>
<b>OB-8TRI</b>	<b>\$329<sup>95</sup></b>
<b>OB-M</b>	<b>\$429<sup>95</sup></b>
<b>Stealth PLUS</b>	<b>\$269<sup>95</sup></b>
<b>OB-SB</b>	<b>\$99<sup>95</sup></b>
<b>OB-360</b>	<b>\$99<sup>95</sup></b>
<b>DIA K400-3/8C</b>	<b>\$69<sup>95</sup></b>
<b>DIA C-110</b>	<b>\$14<sup>95</sup></b>

## The Outreach™ \$399<sup>95</sup>

A complete efficient portable antenna system to meet the needs of those who have limited space or are deed restricted. Ideal for backyard, patio, woods or field day. Covers all bands from 160 thru 10 meters, providing an exceptional level of performance. The perfect companion for the Outpost Tripod mount. Black, heavy duty epoxy finish looks great! Slim design makes it nearly invisible to your neighbors.

- Covers All Bands, 160-10 meters • Overall Length: 12 ft. • Weight: 4 lbs.
- Exceptional performance! 10, 12, and 15 meters are 5/8 wave – all bands are center loaded for peak performance. • Rated at 300W PEP
- Utilizes the time proven OUTBACKER® band tap system.
- Split 8 ft. shaft and 4 ft. stinger • Breaks down into (2) 4 ft. sections for portability; comes with a protective carrying case
- Terminates in standard 3/8" x 24 threaded base.

## The Outreach 500™ \$439<sup>95</sup>

The mechanical specifications are exactly the same as for the standard Outreach model, however it does not cover 160 meters, but includes 6 meters in addition to all other HF bands including WARC bands. A band tap is provided for both 80 and 75 meters, allowing coverage of the entire 3.5 to 4.0 MHz range. Power handling has been increased to a robust 500W CW & 600W PEP.

## The Outrunner™ \$349<sup>95</sup>

Same as for the standard Outreach model, but in a 9 ft. version instead of 12 ft. Covers 160 thru 10 meters including WARC bands, and has a split shaft and a 3 ft. stinger. Rated at 150 watts PEP, and has a standard 3/8" x 24 base.

**HAM • MARS • CAP • MARINE/ITU**  
**WIDE BANDWIDTH • LOW SWR NO CHANGING COILS**  
**It's Plug-n-play!**



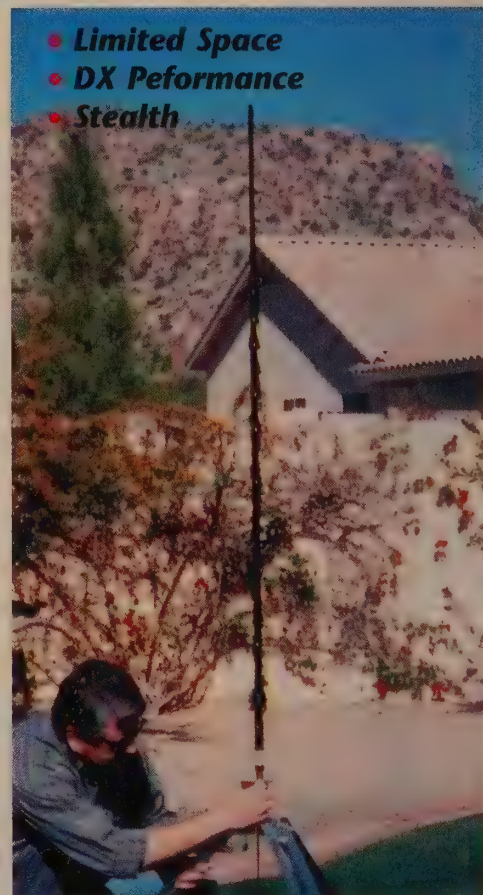
**The Outbacker™** – Constructed of fiberglass with pre-tuned copper helical windings and covered with smooth epoxy-resin and a coating of polyurethane for strength, and durability. The mounting ferule is nickel-plated brass with standard 3/8x24 threads.

Frequency coverage is broadbanded but the top spike is adjustable which allows tuning for the lowest possible VSWR on 75M and the upper end of 10M.

Tap points are clearly engraved for each band. Changing bands is accomplished manually by plugging the unique OUTBACKER "Wander lead" into the proper tap; for 75M the lead is removed entirely.

Beautiful, shiny black finish. 8 models, with optional spring/base, mounts and cable.

- **Limited Space**
- **DX Performance**
- **Stealth**







## Variable Response Console

An advanced audio processing speaker system that offers studio level audio quality for music, voice, and CW/data for the communications enthusiast. It enhances the reception capabilities of ANY receiver, transceiver or scanner—even the expensive ones using DSP! An exclusive custom designed ducted port bass reflex speaker system offers outstanding audio performance.

- Low distortion, low harmonic push-pull audio amplifier. Outperforms the typical single-ended amplifier.
- Adjustable 12dB Bass boost and cut circuitry enhances both Voice and Music. LED reads out in dB
- Adjustable sharp cut-off "Sampled Data Switched Capacitor Audio Filter" (SCAF) can be set for optimum interference reduction for any mode and any band condition – AM, FM, SSB, CW or data. An LED light bar readout shows the cut-off frequency.
- Peaking circuitry (20 dB) allows CW and Data signals to "pop" out of the background noise & interference.
- Continuously adjustable 40dB Deep Notch circuitry effectively takes out interfering heterodynes.

**Model VRC** Variable Response Console .....\$249<sup>95</sup>

**Model VRC-2** Ducted Port Bass Reflex Speaker  
same as above, but no amplifier/filter ..... \$99<sup>95</sup>



## KENT Paddles from ALPHA DELTA



### Reasons for Buying KENT Paddles:

- Delicate, smooth feel due to sealed ball bearings instead of simple spring-loaded pivots • Free movement, minimum friction sideplay
- Precise gap alignments with instrument knurled heads on fine pitched screws and locking nuts.
- Rugged components made from machined, polished solid brass contained within a permanent brass housing.
- Silver contacts • Non-slip feet • Weighted for stability • Paddle models use heavy steel bases
- Designed and produced by R.A. Kent Engineers – England. Fully assembled and tested by Alpha Delta.

**Model SK-1** Straight Morse Key (top) .....\$129<sup>95</sup>

**Model SP-1** Single Paddle Morse Key (bottom/left)...\$139<sup>95</sup>

**Model TP-1** Twin Paddle Morse Key (bottom/right)....\$149<sup>95</sup>

### Titanic Morse Code Key (Model TK-1) \$149<sup>95</sup>

Robert Kent of Kent Engineers in England did meticulous research on the code key that was used on the Titanic, and has produced a beautiful crafted machined brass, working replica to be marketed by Alpha Delta. Each key has a serial number, a matching certificate telling of the event, and are individually signed by Kent for authenticity. The key provides extremely smooth operation and is a great addition to any station or collector's desk.



Jim Burns, WB4ILP demonstrates the versatility of the Outpost™ mount



## Outpost™ \$199<sup>95</sup>

### Tripod/Ground Coupler Mounting System

- Improves antenna efficiency – the fold-out legs and blades all act as a large capacitor to improve ground coupling for a better impedance match.
- Matches the base impedance of all OUTBACKER® antennas.
- Fold-up design sets up in a snap. It's stand-alone, no digging, no holes in ground, no concrete. Collapses just as fast for portability
- Fold-over top bracket. Mobile-type mount with SO-239 connector accepts a 3/8" x 24 stud. Antenna easily removed or folded down to be out of view when not in use.
- Constructed of aircraft 6061-T6 aluminum, stainless steel hardware and wing nuts. All assembled, no tools required to erect, or attach antenna.
- Weight: 18 lbs



## DH-1 Hydraulically Dampened Fold-Over Fixture for Vertical Antennas – \$249<sup>95</sup>

- Allows easy installation or working on your vertical antenna from the ground.
- Quick and easy raising and lowering. Great for larger HF Verticals such as the R-7000, DX-77, or others up to 29 ft. long.
- Hydraulic module provides assisted lowering for safe, one man operation.
- Stealth! When lowered, the attached antenna rests steady in a horizontal position hidden from your neighbor's view.
- Bolts to weighted board, or 16" square by 24" deep concrete base for strong permanent installation.
- Stainless steel hardware, no assembly required. Shipping weight 33 lbs.





# BARKER & WILLIAMSON ANTENNAS and ACCESSORIES

603 Cidco Rd • Cocoa FL 32926

Tel: 407-639-1510 • Fax: 407-639-2545

For more information, please visit our website at [www.bwantennas.com](http://www.bwantennas.com)

## Broadband Folded Dipoles - Continuous Coverage of HF Band

These antennas are so unique that they even have a patent on them! They can offer operation over the entire HF band without need for an antenna tuner. Work any frequency you want without going through a lot of knob twirling and measurements to get a good SWR match - just set your frequency and go!

See B&W in  
the Price  
Guide



- ✓ Unique Patented Design
- ✓ True Continuous Coverage
- ✓ 1.8 - 30 Mhz in Only 90 Ft.
- ✓ Low Noise for Superior Receive
  - SWR less than 2:1 from 1.8 - 30 Mhz
  - No antenna tuner required
  - 2 KW PEP SSB/CW ICAS
  - #14 stranded copperweld or stainless wire
  - 50 Ohm input with SO-239
  - Comes completely assembled, only 10 lbs.
  - Install as flat, inverted Vee, or sloper

This antenna was designed at Barker & Williamson by request of the US Government over 20 years ago. Since then we have supplied tens of thousands of them to the US Armed Forces and other military organizations including NATO, international disaster relief organizations, emergency management operations and countless commercial organizations around the world. They can be found on every continent, including Antarctica. From deserts, to tropical rain forests, to frozen tundra - tough antennas that deserve their excellent reputation for performance worldwide.

**AC-5-30 (Copperweld), ACS-5-30 (Stainless Steel) -----5.0 to 30 MHz in 65 feet**  
**BWD-1.8-30 (Copperweld), BWDS-1.8-30 (Stainless Steel) -----1.8 to 30 MHz in 90 feet**  
**ASW-90 (Copperweld) Receive Only -----500 kHz to 30 MHz in 90 feet**

### Trap Dipole Antenna Kits

Barker & Williamson dipoles are made from #14 stranded copperweld wire. All antennas will handle 1KW PEP. These dipoles may be installed as inverted "Veess" or horizontally.

Length	Bands	Description	Model	Shpg Weight
137 Ft 41.75 M	160 80 40 20	Low SWR on all bands. Three sets of traps isolate a full half wave on each band for superior performance.	AS-160	8 lbs 3.65 Kg
110 Ft 33.5 M	80 40 20 15 10	Low SWR on 80 and 40 meter bands, somewhat higher SWR on 20, 15 and 10 meters. Utilizes one set of traps.	AT-110	5 lbs 2.25 Kg
96 Ft 29.25 M	160 30	2 KW PEP. This antenna has one set of loading coils to allow 160 meters in very limited space.	AXS-160	6 lbs 2.72 Kg
78 Ft 23.75 M	80 40 20	Two sets of traps give low SWR on all bands. Excellent 80 meter coverage.	AS-80	6 lbs 2.72 Kg
65 Ft 19.8 M	80 40 15	A combination of one set of loading coils and one set of traps allows 80 meters in very limited space.	AXS-80	6 lbs 2.72 Kg
55 Ft 16.75 M	40 20 15 10	Four bands in only 55 ft. One set of traps gives efficient operation.	AT-55	5 lbs 2.25 Kg
40 Ft 12.2 M	40 20 15 10	Utilizing three sets of traps, this antenna has low SWR on all bands.	AS-40	7 lbs 3.18 Kg
20 Ft 6.1 M	20 15 10	For very light spots, two sets of traps yield low SWR on all three bands.	AS-20	6 lbs 2.72 Kg

### 300W PORTABLE ANTENNA 2 TO 40 METERS



**AP-10** Designed especially for renters, travelers and city dwellers. Aluminum bracket clamps to a window or table. Includes detachable whip (51"), insulated counterpoise wire, 10 ft. of coax, hardware and set of 5 loading coils for 40, 30, 20, 15 and 10 meters. Use nearest coil and adjust counterpoise for in between bands. No coils needed for 6 or 2 meters. Also useful as an emergency antenna. Don't be off the air! Requires simple assembly. 3 lbs.

### End-Fed Vee - Broadband from 1.8 to 30MHz

All of the same unique broadband characteristics of our folded dipole antennas, except in a different configuration. Weight 7 lbs.



**AC-1.8-30 -----Copperweld Wire**  
**ACS-1.8-30 -----Stainless Steel Wire**

Quality Communications Products Since 1932 — All Products Proudly Made in the USA





**NCG/COMET has an extensive line of Mono-Band, Dual-Band, Tri-Band Antennas for Base Station and Repeater use.**

**Featuring the COMET Exclusive SLC System:**

- Linear Coil for Maximum Gain
- Soldered Element Joints
- ABS Radome Joints: Weather Proof/Invisible to RF for the Finest Radiation Pattern

**GP-15** • Tri-band 52/146/446MHz Base Repeater Antenna  
Gain & Wave: 52MHz 3.0dBi 5/8 wave • 146MHz 6.2dBi 5/8 wave x 2 • 446MHz 8.6dBi 5/8 wave x 4 • Max Pwr: 150W • Length: 7'11" • Weight: 3lbs. 1oz. • Conn: Gold-plated SO-239 • 2MHz band-width after tuning (6M) • Construction: Single-piece fiberglass

**CX-333** • Tri-band 146/220/446MHz Base Repeater Antenna  
Gain & Wave: 146MHz 6.5dBi 5/8 wave x 2 • 220MHz 7.8dBi 5/8 wave x 3 • 446MHz 9.0dBi 5/8 wave x 5 • Max Pwr: 120W • Length: 10'2" • Weight: 3lbs. 1oz. • Conn: Gold-plated SO-239 • Construction: Fiberglass, 2 Sections

**GP-3** • Dual-band 146/446MHz Base Repeater Antenna  
Gain & Wave: 146MHz 4.5dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Max Pwr: 200W • Length: 5'11" • Weight: 2lbs. 9ozs. • Conn: Gold-plated SO-239 • Construction: Single-piece fiberglass

**GP-6** • Dual-band 146/446MHz Base Repeater Antenna  
Gain & Wave: 146MHz 6.5dBi 5/8 wave x 2 • 446MHz 9.0dBi 5/8 wave x 5 • Max Pwr: 200W • Length: 10'2" • Weight: 3lbs. 8ozs. • Conn: Gold-plated SO-239 • Construction: Fiberglass, 2 Sections

**GP-9** **GP-9N** • Dual-band 146/446MHz Base Repeater Antenna • BEST SELLER!  
Gain & Wave: 146MHz 8.5dBi 5/8 wave x 3 • 446MHz 11.9dBi 5/8 wave x 8 • Max Pwr: 200W • Length: 17'8" • Weight: 5lbs. 11ozs. • Conn: GP-9 Gold-plated SO-239 • **GP-9N** Gold-plated N-type female • Construction: Fiberglass, 3 Sections

For a complete catalog of **COMET** Antenna products call or visit your local dealer. Or, contact **NCG Company** at **800/962-2611**. Use NCG/COMET products, and enjoy amateur radio to it's fullest!

**CYA-240** • Dual-band 146/446MHz Yagi Cable and Divider included • Gain VHF 9.5dBi 3 Elements • UHF 11.6dBi 5 Elements • Max Pwr: 150 FM/300W SSB • Boom Length: 5'3" • Weight: 4lbs. 7ozs. • Conn: SO-239 • Construction: Aluminum  
**NEW 240KT** • Stacking kit for the CYA-240.



1275 N. Grove Street • Anaheim • California 92806  
(714) 630-4541 • (800) 962-2611 • Fax: (714) 630-7024 • [www.cometantenna.com](http://www.cometantenna.com)



Go Mobile, get there with

COMET!

## Lip Mounts



**RS-720 • RS-720**  
NMO Multi-adjustable lip mount, up to 60" antenna RS-720 NMO accepts an NMO mount



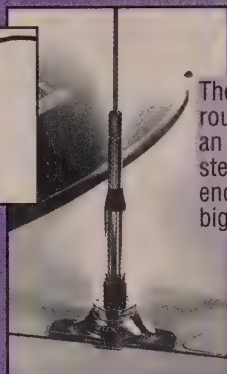
**RS-730** Multi-adjustable heavy duty lip mount, up to 70" antenna



**RS-520** Multi-adjustable lip mount, up to 45" antenna



**GR-5M** Deluxe trunk lip mount. Rubber coated base protects the vehicles paint. All stainless steel, includes the CK-3M5 deluxe cable assembly to avoid water leads/cable damage when shutting the trunk. Four large set screws hold it securely in place. Two offset washers adjust the antenna to vertical. Gold-plated SO-239/PL-259 connectors.



The GR-5M's smooth rounded corners make an attractive stainless steel mount strong enough to hold the biggest antennas.



B



C

**CQ-5M** "Quick-disconnect" trunk lip mount. Rubber coated-base protects the vehicles paint. Includes the CK-3M5 deluxe cable assembly avoiding water leaks or cable damage when shutting the trunk. Gold-plated SO-239/PL-259 connectors.

COMET's newest and most unique truck lip mount, the CQ-5M. Mounts to any trunk lid and adjusts to vertical with two offset washers. The mount base supports even the largest dualband or HF antenna. **A) CQ-5M** trunk lip mount with COMET SBB-2 2M/70cm antenna.

**B)** Quick-disconnect lever releases the antenna and connector for long term storage in your trunk, to use a car wash, or theft prevention.

**C)** The low profile base is the only thing that remains when the antenna is removed, ready for instant re-attachment.

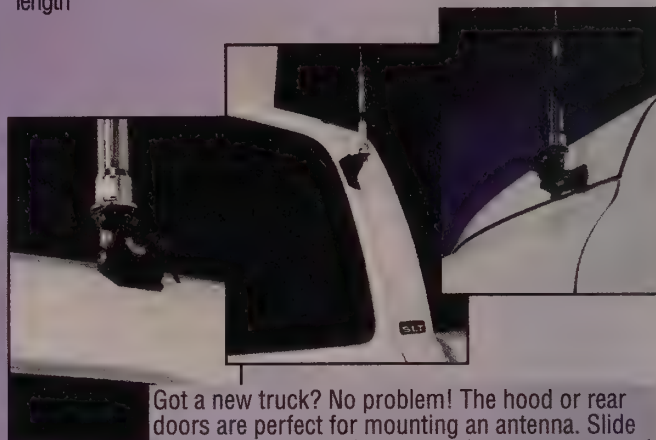
## Cable Assemblies for Lip Mounts



**CK-3M5** Deluxe cable assembly 17' length including 17" of RG-188A/U for easy entry from a lip mount without causing water leak, wind noise or coax damage  
**CK-3M** Deluxe cable assembly same as CK-3M5, but 9'9" total length

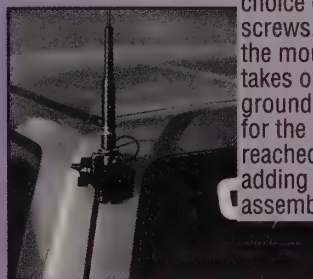


**3D5M** Standard low loss cable assembly. Gold plated SO-239/PL-259 connectors. 17' length  
**3D4M** Same as 3D5M, but 13.5' length



Got a new truck? No problem! The hood or rear doors are perfect for mounting an antenna. Slide the mount over the lip, tighten the set screws, and adjust it to vertical. No holes to drill, the mount is grounded and installation takes only a few minutes. Choose the deluxe or standard cable assembly in the length required.

Going mobile is easy with COMET products, and there are no holes to drill. The rear doors on VAN's and SUV's are the perfect place to mount an antenna. Simply lift or open the rear door, slide your mount of choice over the lip, then tighten the set screws. Soft rubber protects the paint, and the mount adjusts to vertical. Installation takes only a few minutes. The mount is grounded, the antenna is above the roof line for the best performance and is still easily reached if needed. Complete the system by adding the standard or deluxe cable assembly in the appropriate length.



# COMET™



1275 N. Grove Street • Anaheim • California 92806  
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Designed with a  
spring in the whip  
to absorb impacts.**

\* **NEW MH-209SMA** • Dual-band 146/446MHz HT Antenna w/SMA Conn  
Gain & Wave: 0 1/4 wave • Length: 3" Flexible rubber • Conn: Male SMA • Max Pwr: 5W

**NEW SMA-503** • Dual-band 146/446MHz HT Antenna w/SMA Conn  
Length: 8.75" • Conn: Male SMA • Max Pwr: 10W

\* **NEW MH-510** • Tri-band 52/146/446MHz HT Antenna w/SMA Conn  
Gain: 0/0/ 3.2dBi • Length: 20.75" • Conn: Male SMA • Max Pwr: 10W

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**SB-15** • Tri-band 52/146/446MHz w/fold-over  
Gain & Wave: 52MHz 0dBi 1/4 wave • 146MHz 4.5 dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Length: 58" • Conn: PL-259 • Max Pwr: 120W

**SBB-7** **SBB-7NMO** • Dual-band 146/446MHz w/fold-over  
Gain & Wave: 146MHz 4.5dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Length: 58" • Conn: SBB-7 PL-259/SBB-7NMO NMO • Max Pwr: 70W

**SBB-5** **SBB-5NMO** • Dual-band 146/446MHz w/fold-over  
Gain & Wave: 146MHz 2.5dBi 1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: SBB-5 PL-259/SBB-5NMO NMO • Max Pwr: 120W

**T750** • Dual-band 146/446MHz w/fold-over • Includes COMET exclusive theft-resistant lock!  
Gain & Wave: 146MHz 2.15dBi 1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: Gold-plated PL-259 • Max Pwr: 200W

**T780** • Dual-band 146/446MHz w/fold-over • Includes COMET exclusive theft-resistant lock!  
146MHz 6/8 wave 4.5dBi • 446MHz 5/8 wave x 3 7.2dBi • Length: 62" • Conn: Gold-plated PL-259 • Max Pwr: 150W

**B-20** **B-20NMO** • Dual-band 146/446MHz w/fold-over  
Gain & Wave: 146MHz 2.15dBi 1/2 wave • 446MHz 5.0dBi 5/8 wave x 2 • Length: 30" • Conn: B-20 PL-259/B-20NMO NMO • Max Pwr: 50W

**B-10** **B-10NMO** • Dual-band 146/446MHz cellular look-a-like •  
Gain & Wave: 146MHz 0dBi 1/4 wave • 446MHz 2.15dBi 1/2 wave • Length: 12" • Conn: B-10 PL-259/B-10NMO NMO • Max Pwr: 50W

• The **CA-UHV** is a 6M/2M/70cm triband antenna. Add 2-3 of the stock or optional coils for 5-6 band operation.  
• HF-70cm all in one economical easy to mount antenna.  
• Fold-over hinge built in.  
• Select the correct duplexer or triplexer for your specific radio (s).  
• CF-706A, CF-530, CFX-514N (Ask your dealer)

**NEW CA-UHV** • HF/6M/2M/70cm Mobile Antenna 40"/20"/17 1/2"/15 1/2"/10 1/2"/6 1/2"/2M/70cm  
Gain & Wave: HF-6M 1/4 wave • 2M 3.4dBi 5/8 wave • 70cm 2.15dBi 1/2 wave • VSWR: HF 1.6:1 or less • 6M-70cm 1.5:1 or less • Length: 6'2" • Max Pwr: HF 120W SSB • 6M 200W SSB/100W FM • 2M/70cm 100W FM • \*L-14 Optional 20M coil • \*L-18 Optional 17M coil

\* **NEW MSG-1600C** • Dual-band 146/446MHz w/spring whip and fold-over  
Gain & Wave: 146MHz 2.15dBi 1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: PL-259 • Max Pwr: 120W

\* **NEW MSG-1100C** • Dual-band 146/446MHz w/spring whip and fold-over  
Gain & Wave: 146MHz 3.5dBi 1/2 wave • 446MHz 6.0dBi 5/8 wave x 2 • Length: 43" • Conn: PL-259 • Max Pwr: 150W

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# CUSHCRAFT

COMMUNICATIONS ANTENNAS

The R7000 is a 10 through 40 meter, no ground radial antenna that is expandable to include 80 meters. It includes the best features of its predecessor the R7 plus many more. R7000 means excellent performance, easy installation and use, slim silhouette and high reliability.

## R80 Add-On Kit

80 meters can be easily added to the R7000 with the R80 kit. The kit includes a 40 meter trap, tubing, 80 meter loading coil, UV stable 400 lb. test guy rope and three 20 foot counterpoise wires that attach to your guy points. The R80 counterpoise wires were designed with state-of-the-art anti-resonators to ensure top performance on all bands. The R7000+ with R80 kit is pictured on the next page.

- **EXPANDABLE TO 80M**

Transform your R7000 into an R7000+ with R80 kit (trap, tubing, guy & counterpoise wire)

- **RUGGED**

New trap design uses low-loss Teflon® dielectric

- **EASY INSTALLATION**

For typical use, tuning is not needed

- **AUTOMATIC BAND CHANGING**

To any band from 10 through 40m (80m with R80 kit)

- **SLIM SILHOUETTE**

Gain favor of family and neighbors with the slim, smooth profile of our new trap design

MODEL	R7000	R7000+ (w/R80 kit)
Frequency, meters	10,12,15,17, 20,30,40	10,12,15,17 20,30,40,80
Gain, dBi	3	3
VSWR	1.2:1 typical	1.2:1 typical
2:1 bandwidth, KHz	10m (1700) 12m (100) 15m (450) 17m (100) 20m (250) 30m (100) 40m (150)	10m (1700) 12m (100) 15m (450) 17m (100) 20m (250) 30m (100) 40m (100) 80m (70)
Power Rating, Watts PEP	1500	1000
Radiation angle, deg.	16	16
Horizontal rad, deg	360	360
Height, ft(m)	24 (7.3)	34.5 (10.5)
Mast size range, in (cm)	1-3/4 to 2-1/8 (4.4-5.4)	1-3/4 to 2-1/8 (4.4-5.4)
Wind load, ft2 (m2)	2 (0.2)	2.5 (.23) antenna 1.5 (.139) guys
Weight, lb, (kg)	18 (8.2)	24 (10.8)

10, 12, 15, 17, 20, 30, 40 Meters





Here's what some of the very first R7000 users have to say.

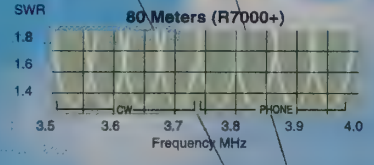
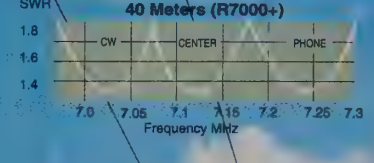
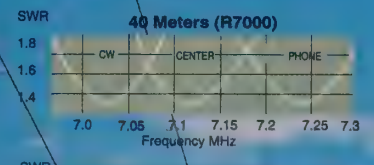
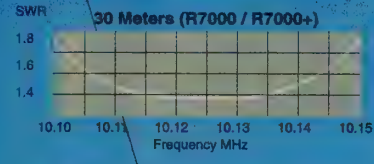
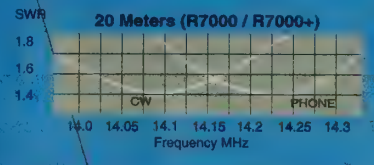
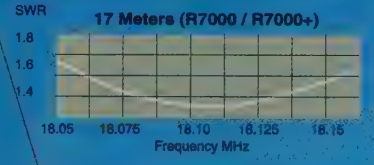
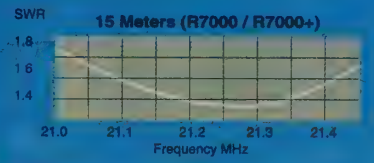
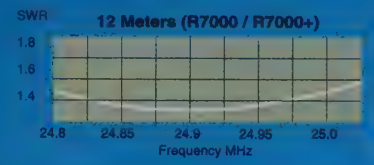
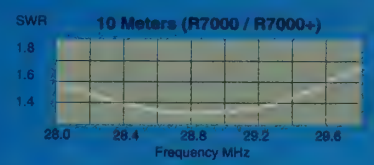
"The antenna is well built. The instructions are very clear with very helpful diagrams . . . Seven bands right out of the box with no tuning is impressive. . . I really like the construction of this antenna, no loose lockwashers to chase around. All stainless steel hardware is top notch. Keep up the good work." WVØH

"The R7000 experienced several hours of 50 mph sustained wind with gusts 70 plus mph. I used the R7000 during this time and noticed no difference in performance . . . I was surprised by being able to easily work western European and western African stations on 17m (from North Dakota)" WBØOAJ

# 10, 12, 15, 17, 20, 30, 40, 80 Meters

## R7000 Trap

- UV stabilized weather proofing cap
- Controlled inductance traps
- Large diameter wire
- Large head thread cutting screws
- Non dissimilar termination rivets
- Stabilized all-weather plastic coil forms
- AL6063 cover design
- Natural drain



## R7000's Rugged Design

- Generous use of stainless steel machine screws guarantees base integrity
- Dual plate 1G rod mount allows for easy assembly of ground components
- Plate interfaced mounting system uses aluminum components and stainless steel hardware

## R7000 Matching Network

- Matching capacitors
- Broadband matching transformer maintains low VSWR at feed point
- Coaxial balun is employed to keep RF off from the exterior of your feedline
- RF choke effectively DC grounds the radiator to help prevent static electricity from entering your shack
- High strength, high power, low dielectric PC board material
- All stainless steel hardware
- Moisture release vent
- Feedpoint (SO239)


R7000+

CUSHCRAFT

Cushcraft Corporation, Manchester, NH



# INTRODUCING R6000

 6 - 20 Meters

## The Shape of Things to Come

The NEW R6000 is a 6 through 20 meter, no ground radial antenna. It includes many of the features of the R7000, R7 and R5 antennas. R6000 means excellent performance, easy installation and use, slim silhouette and high reliability. There are no traps used on 6, 10 and 15 meters for maximum efficiency and power handling.

- **EASY INSTALLATION**

For typical use, tuning is not required

- **AUTOMATIC BAND CHANGING**

To any band 6 through 20 meters

- **SLIM SILHOUETTE**

Gain favor of family and neighbors with the slim, low profile of the R6000

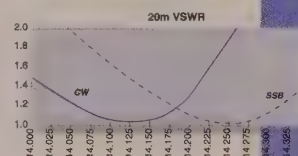
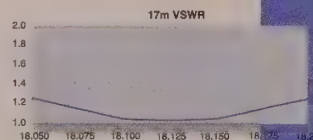
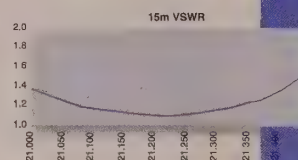
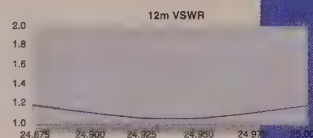
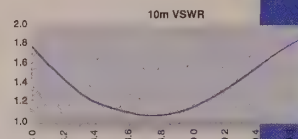
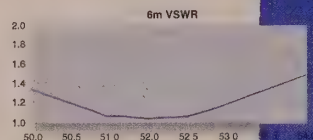
- **6 METER OPERATION**

Join the fun of the "Magic Band" and take advantage of the new HF/50MHz transceivers

- **AFFORDABLE PRICE**

Cushcraft delivers the best quality and performance at a price no one else can match.

SPECIFICATIONS	R6000
Frequency, meters	6, 10, 12, 15, 17, 20
Gain, dBi	3
VSWR minimum	1.2:1 typical
2:1 bandwidth, KHz	6m >3000 10m >1700 12m >100 15m >450 17m >100 20m 300
Power, Watts output	1500
Radiation angle, deg.	16
Horizontal rad, deg	360
Height, ft (m)	19 (5.8)
Mast size range, in (cm)	1.5 - 1.75 (3.8 - 4.4)
Wind load, ft2 (m2)	1.5 (.14)
Weight, lb (kg)	12.5 (5.6)

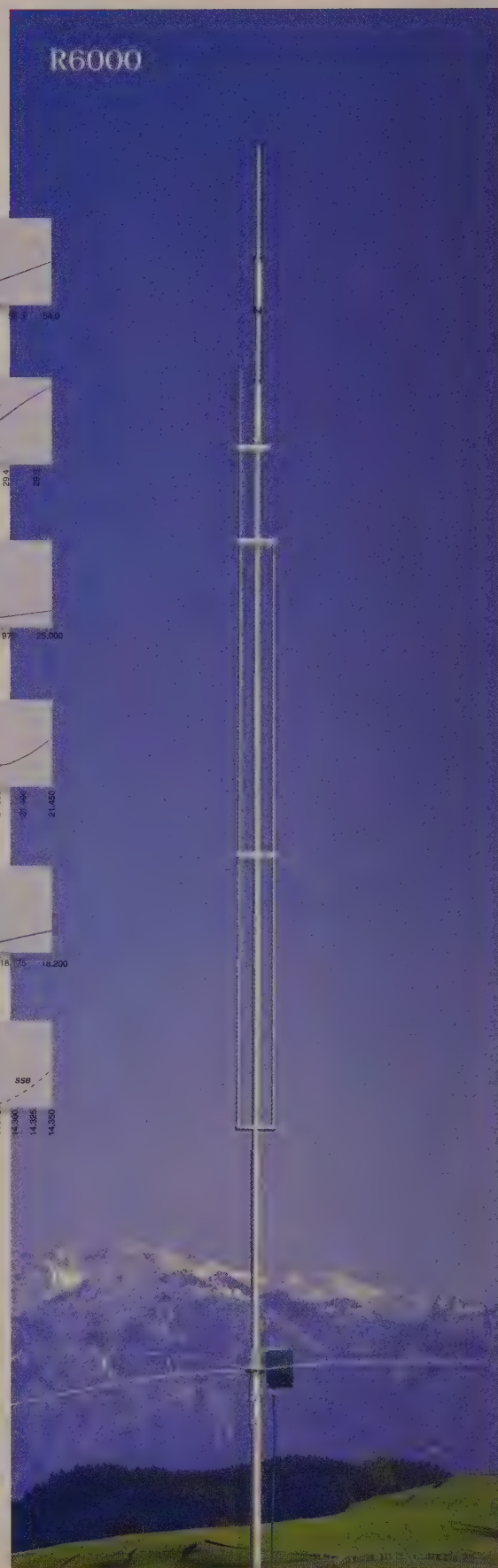


The R6000 employs quarter wavelength stubs on 10 and 15 meters to replace standard trap coils. The result is lower loss and wider bandwidth. The R6000 covers all bands 6 through 15 meters at a VSWR under 2:1. On 20 meters you can select the top 300 KHz or bottom 300 KHz of the band.

The R6000 weighs only 12-1/2 pounds (5.6 kg). It is lightweight and easy to mount for portable or permanent installations. Machined aluminum clamps and UV stable insulators guarantee years of reliable service. The R6000 comes with the standard Cushcraft warranty of one year from purchase - plus the industry's leading technical support team stands behind each Cushcraft antenna.

The R6000 makes an excellent diversity antenna to complement even the most complete stations. Or pack up the R6000 for a trip to the DX location of your dreams. With sunspots on the rise, amateurs worldwide are returning to the HF bands in large numbers. The R6000 will take you there first class for the exciting years ahead.

**CUSHCRAFT**





# BIG THUNDER SERIES TRIBANDERS

**10, 15, 20 Meters**

## X9 & X7

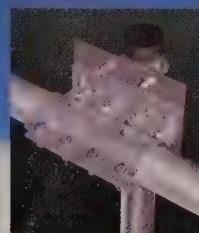
The new X9 and X7 Triband Yagis are geared to set new standards in both radiating performance and mechanical reliability. Cushcraft's product development team has employed the latest computer modeling technology to achieve a superior electrical design as well as elegant new mechanical hardware and assembly techniques.

Each mechanical component was designed to + MPH wind survival with a 1.25 safety factor.

Traps were eliminated from the high current driven elements and reflectors using the new *4L Log Cell* design, which yields virtual monoband performance and maximum power handling capability. Traps are employed only in the lower current directors for increased gain and sharper pattern. The result is a truly high performance antenna family which will easily handle the legal limit.



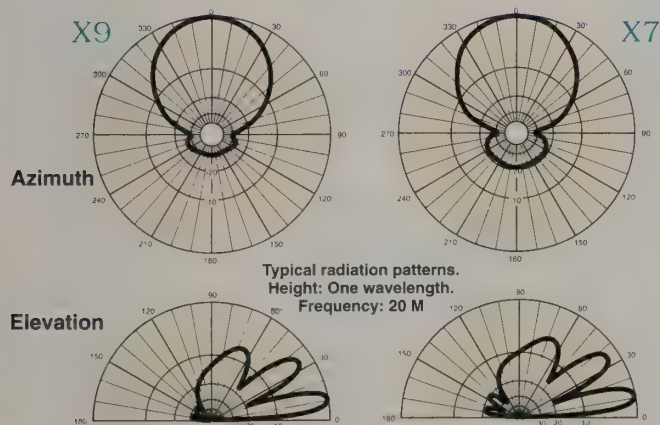
Boom to Mast Clamp



Element to Boom Mounting



- ▶ New High Efficiency Computer Optimized Design for Maximum Gain and Ultra Clean Radiating Pattern
- ▶ 100+ MPH Construction for Best Reliability and Long Life
- ▶ NEW 4L Log Cell Driven Elements for better VSWR Bandwidth
- ▶ Trapless Driven Elements and Reflectors for Reliable Power Handling
- ▶ Interleaved Element Design for Mono-Band Performance
- ▶ Add-on kits available for 40 Meters

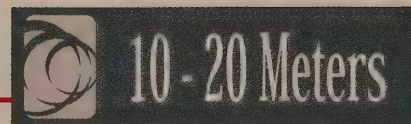


SPECIFICATIONS	X9	X7
Frequency Coverage (Meters)	10, 15, 20	10, 15, 20
Total number of Elements	9	7
Maximum Gain (dBi)	20M 13.0 @ 14 deg	12.5 @ 14 deg
@ One Wavelength	15M 13.9 @ 12 deg	13.0 @ 12 deg
Maximum Front to Back Ratio (dB)	30	30
Number of Elements per Band	4	3
VSWR Minimum	1.1:1	1.1:1
VSWR 1.5:1 Bandwidth (KHz) 20M	350	600
Longest Element, ft (m)	36.5 (11.12)	37.2 (11.33)
Turning Radius, ft (m)	21.7 (6.61)	20.0 (6.09)
Boom Length, ft (m)	28 (8.53)	18 (5.49)
Boom Diameter, in (cm)	2-1/2 (6.35)	2-1/2 (6.35)
Maximum Mast Diameter OD, in (cm)	2-1/2 (6.35)	2-1/2 (6.35)
Maximum Wind Survival, mph (kph)	>100 (>161)	>100 (>161)
Maximum Wind Surface Area, ft2 (m2)	9.9 (.92)	7.9 (.73)
Windload @ 80 mph, lb (kg)	255 (116)	202 (92)
Maximum Power Handling (KW)	2	2
Weight, lb. (kg)	85 (38.5)	60 (27.2)

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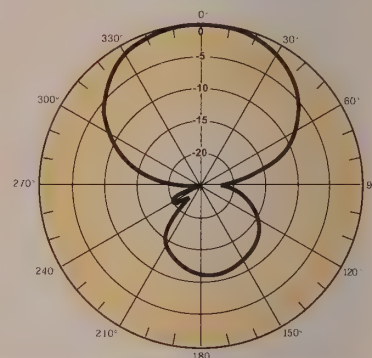


# HF MULTIBAND BEAM



- **Easy To Tune**  
No complicated gamma matches to adjust.
- **Easy To Turn**  
With a boom length of 7 feet and a longest element length of 17 feet, a lightweight TV rotor will do the trick.
- **Low VSWR**  
Flat response across all 5 bands. VSWR minimum 1.2:1.
- **Single Feed Point**  
Only one coaxial feed line is necessary for all 5 bands.
- **Rugged Construction**  
Cushcraft's tried and true stainless steel mounting hardware and heavy wall aluminum tubing make for a rugged, long lasting antenna.

## High Front To Back Ratio On 10/15/20m

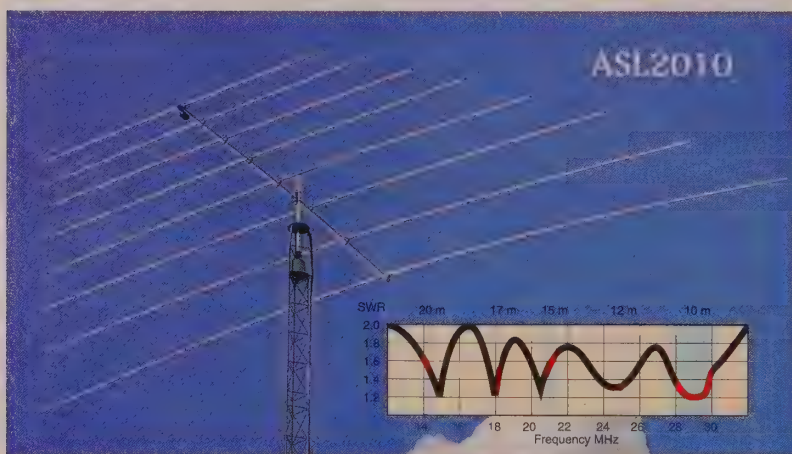


### MA5B SPECIFICATIONS

Frequency, MHz	10	12	15	17	20	Meters
Elements	2	1	2	1	2	per band
Gain	53	1.0	48	1.0	36	dBi
Front to Back Ratio	10	0	12	0	22	dB
Sidelobe Attenuation	25	25	25	25	25	dB
VSWR 2:1 Bandwidth	665	>110	255	>100	90	kHz
Longest Element	17.1ft (5.2m)					
Turning Radius	88ft (27m)					
Boom Length	73ft (22m)					
Boom Diameter	1.5in (3.8cm)					
Max. Wind Surface Area	3.22 ft <sup>2</sup> (.3m <sup>2</sup> )					
Max. Power Handling	1.2 kw					
Weight	26.5 lbs. (12kg)					

## The Director, Small Footprint-Big Signal

**MA5B.** Cushcraft's newest multiband HF antenna provides 5 band directivity in a package small enough to mount to a tripod. The MA5B is a design that does not sacrifice ruggedness, performance and power handling for size and ease of installation.



## Skylog

- Continuous five band coverage from 13.5 to 32 MHz
- Constant over entire frequency range
- 6.4 dBi gain, 65 degree beamwidth
- High efficiency design, antenna stays cool and VSWR steady
- 18 foot boom and 19.5 foot turning radius

### MODEL ASL2010

Frequency, MHz	13.5-32
No. Elements	8
Forward Gain, dBi	6.4
Front to Back Ratio, dB	15-20
SWR 1.2:1 Typical	
2:1 Bandwidth	18.5 MHz
Power Rating, Watts PEP	2000
3dB Beamwidth, Degrees	
E Plane	65
Boom Length, ft (m)	18 (5.48)
Boom Diameter, in (cm)	2.0 (5.08)
Longest Element, ft (m)	38 (11.58)
Element Ctr Dia., in (cm)	1.25 (3.18)
Turning Radius, ft (m)	19.25 (5.86)
Mast Size Range, in (cm)	1.5-2 (3.8-5.1)
Wind Load, ft <sup>2</sup> (m <sup>2</sup> )	10.1 (.93)
Weight, lb (kg)	55 (25.5)

The ASL2010 log periodic antenna is the most cost effective, high gain, five band antenna solution on the market today. Skylog offers continuous operation from 13.5 to 32 MHz. Antenna gain and beamwidth are constant for uniform coverage from 10 through 20 meters. The ASL2010 is rated for continuous duty at full legal power. Skylog is designed for maximum gain on a manageable 18 foot boom with only 10.1 square feet of wind surface area. All stainless steel hardware and rugged element design are only some of the many features that provide years of superior antenna performance. Skylog ASL2010 is the smart choice for multiband HF operation.

**CUSHCRAFT**





# 10 - 40 M

## WORLD RANGER MULTIBAND HF YAGIS

### A4S Four Element Beam - 10, 15 & 20 Meters

#### With stainless steel hardware.

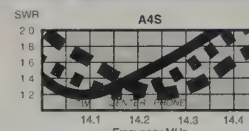
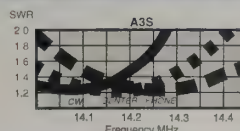
The A4S is the true, high performance tribander. Precisely tuned high-power traps, carefully selected element lengths, and proper spacing combine to make the A4S the preferred antenna for your HF work! This is the premium antenna with all the features that you want. High gain, low SWR, and wide bandwidth keep the contacts coming in. All U-bolts, clamps and hardware are stainless steel. The A4S has pinned boom sections and formed aluminum brackets to keep elements straight under all conditions. Our solid construction keeps the A4S on the tower! Add 40 meters with A744 kit.

### A3S Three Element Beam - 10, 15 & 20 Meters

#### With stainless steel hardware.

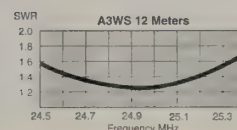
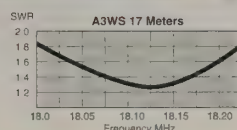
The A3 World Ranger, our top selling tribander, has become the A3S with all stainless steel hardware. It's a real power-house in a small space and lets you work the pile-ups with all you need is a lightweight tower and rotator to enjoy the benefits of the A3S.

It's a proven performer in DX-peditions and contests and handles full power from your linear. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware. When space is at a premium, but you want the benefits of a full-size tribander, the A3S is right for you! Add 40 meters with A743 kit.



### A3WS WARC Bands 3 Element - 12 & 17 Meters

Enjoy the excitement of the WARC bands with this popular beam. The A3WS gives full performance on 12 and 17 meters. With the addition of our easy-to-use A103 add on kit, it will also cover 30 meters. A3WS needs only a lightweight tower and rotator or you can mount it above an existing tribander. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware.



MODEL	A3S	A4S	A3WS
Frequency, MHz	28, 21, 14	28, 21, 14	24, 18
No. Elements	4	3	3
Forward Gain, dBi	8.9	8.0	8.0
Front to Back Ratio, dB	25	25	25
SWR 1.2:1 Typical			
2:1 Bandwidth, KHz	>500	>500	300
Power Rating, Watts PEP	2000	2000	2000
3 dB Beam Width, Deg. E Plane	58	60	60
Boom Length, ft (m)	18 (5.48)	14 (4.27)	14 (4.27)
Boom Diameter, in (cm)	2 (5.10)	1.5 (3.81)	1.5 (3.81)
Longest Element, ft (m)	32 (9.75)	27.75 (8.45)	25.1 (7.66)
Element Center Dia, in (cm)	1.25 (3.18)	1.25 (3.18)	1.25 (3.18)
Turning Radius, ft (m)	18.4 (5.49)	15.5 (4.72)	14.4 (4.4)
Mast Size Range, in (cm)	1.25-2.00 (3.18-5.08)	1.25-2 (3.18-5.08)	1.25-2 (3.18-5.08)
Wind Load, ftz (mz)	5.50 (0.51)	4.36 (0.47)	4.1 (0.38)
Weight, lb (kg)	37 (16.8)	27 (12.9)	22.5 (10.2)

### 30 & 40 Meter Add-On Kits - For A3S, A4S & A3WS

40 meters will come alive by adding one of these kits to the dipole of your A3S or A4S. The kits include high power traps with heavy wall fiberglass insulator and all hardware. A simple adjustment allows 30 meter operation. For our newest beam, the A3WS, we have a 30 meter add on kit the A103.

- A743** 7 MHz/10 MHz kit for A3S
- A744** 7 MHz/10 MHz kit for A4S
- A103** 10 MHz kit for A3WS

MODEL	A743/A744	A103
BAND	7 MHz (40m) 10 MHz (30m)	10 MHz (30m)
Driven Element with Adapter kit, ft (m)	33.19 min. 35.33 max. (10.12-10.77)	27.12 min. 28.4 max. (8.27-8.66)
Windloading ft2 (m2)	.58 (.05)	.27 (.03)
Bandwidth, KHz	125	150
Power Rating, Watts	2000 PEP	2000 PEP
Side Rejection, dB	20	20
Weight, lb (kg)	3.44 (1.56)	2.29 (1.04)

### Rotatable Dipoles

Our World Ranger Dipoles give bi-directional patterns and rotatable convenience. You can mount them high and away from the trees for better performance than a wire dipole. These single and multi-band dipoles feature high-performance traps, heavy wall tubing, and rugged hardware for years of enjoyment.



MODEL	D40	D4	D3	D3W
Frequency, MHz	7	28, 21, 14, 7	28, 21, 14	24, 18, 10
SWR 1.2:1 Typical				
2:1 Bandwidth, KHz	200	>350 40-125	>500	>200
Power Rating				
Watts PEP	2000	2000	2000	2000
Length ft (m)	42.25 (12.88)	35.8 (10.92)	25.8 (7.86)	34.0 (10.37)
Mast Size, in (cm)	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)
Wind Load, ft2 (m2)	1.3 (.12)	1.3 (.12)	.9 (.08)	.9 (.08)
Weight, lb (kg)	12 (5)	13 (6)	9 (4)	11 (5)

## CUSHCRAFT



# NEW PRODUCTS

## 6/2 Meter, 70 CM,

**NEW**



A627013S



AR6270B  
Coming  
Soon

**NEW**

### AR6270B 6 Meter/2 Meter/70 Centimeter

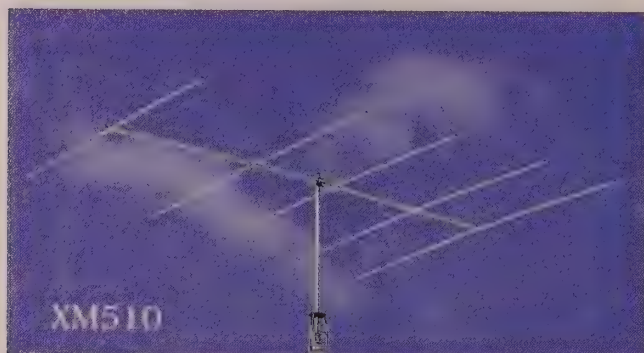
Cushcraft's newest vertical antenna offering omnidirectional coverage on the popular 2 meter, 6 meter and 70 centimeter bands is a great idea for someone with limited space or in need of an antenna that can be easily knocked down and transported. The AR6270B is a great choice for mobile home use. The antenna offers 2dBi of gain 6 meters, 5.5 dBi on 2 meters and 7.5 dBi on 70 centimeters.

### A627013S 6 Meter/2Meter/70 Centimeter

Cushcraft's newest multiband directional yagi is designed to provide hobbyists who have limited tower or mast space with directional antenna performance on three of the most popular bands. The A627013S combines 6 meters, 2 meters and 70 centimeters on one boom. Since the three antennas were designed to share a common boom, the A627013S solves the often encountered problem of degraded antenna performance due to inadequate spacing when using separates.

- Outstanding performance thanks to Cushcraft's unmatched multiband design technology and experience.
- Rugged stainless steel mounting hardware is easy to install and maintain.

MODEL	A627013S		
Frequency, MHz	50-54	144-148	430-450
No. Elements	3	5	5
Forward Gain, dBi	8	10	10
Front to Back Ratio, dB	20	20	18
SWR 1.2:1 Typical			
2:1 Bandwidth, MHz	>1	>4	>10
Power Rating, Watts PEP	1000	350	350
3dB Beamwidth, Degrees			
E Plane		48.5	48.5
H Plane		60	60
Boom Length, ft (m)		8.66 (2.66)	
Longest Element, in (cm)		117 (300)	
Turning Radius, ft (m)		6.16 (1.87)	
Mast Size Range, in (cm)		1.25-2 (3.2-5.1)	
Wind Load, ftz (m2)		2.52 (0.23)	
Weight, lb (kg)		9.5 (4.3)	



XM510

Boom to mast and element to boom hardware are pictured on page 103.

### Big Thunder Monobanders

**XM240 - 40 Meter 2 Element Yagi.** The famous 402CD two element 40 meter beam is now redesigned as the XM240. It features the same contest winning performance with a 90+ mph wind rating. A 2-1/2" OD boom and Big Thunder style 3/16" thick extruded element and boom plates are used to eliminate mechanical failures. A Phillystran boom truss and 1:1 high power balun are included.

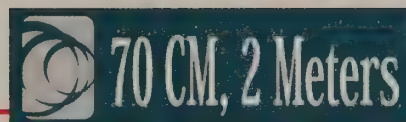
**XM - 10, 15 & 20 Meter 5 Element Yagis.** Cushcraft announces new 5 element Monobanders for 10, 15 & 20 meters. Each XM model has Big Thunder hardware and high wind ratings. Phillystran boom trusses are used on the 20 meter model. The feed systems are 50 ohm direct feed - dual driven elements. VSWR is flat across the band. A high power 1:1 balun is included. Big Thunder Monobanders were Beta tested at three extreme bad weather sites for the winter 1997/1998 season. They have excellent patterns and are perfect for stacks.

MODEL	XM240	XM520	XM515	XM510
Frequency, MHz	7.0 - 7.3	14.0 - 14.35	21.0 - 21.45	28.0 - 29.7
Number Elements	2	5	5	5
Forward Gain Free Space, dBi	6.0	9.3	9.3	9.3
Fwd Gain @ 1 Wavelength Ht, dBi @ 14 deg	12.5	14.4	14.4	14.4
Front to Back Ratio, dB	20-25	20-30	20-30	20-30
VSWR Typical Minimum	1.1:1	1.1:1	1.1:1	1.1:1
VSWR 1.5:1 Bandwidth, KHz	150	> 350	> 450	> 750
Power Rating, Watts Output	1500	1500	1500	1500
3dB Beamwidth, Degrees	70	52	52	52
Side Lobe Attenuation, dB	>35	>40	>40	>40
Boom Length, feet (m)	22 (6.7)	35 (10.7)	24 (7.3)	19 (5.8)
Boom Diameter, inches (cm)	2.5 (6.3)	2.5 (6.3)	2.5 (6.3)	2.5 (6.3)
Longest Element, feet (m)	43 (13.1)	36.3 (11.1)	24 (7.3)	18 (5.5)
Turning Radius, feet (m)	24.3 (7.4)	25.9 (7.9)	16.3 (5.0)	13.8 (4.2)
Max Mast Size, inches (cm)	2.5 (6.35)	2.5 (6.35)	2.5 (6.35)	2.5 (6.35)
Wind Surface Area, sq ft (sq m)	5.5 (.51)	9.2 (.85)	4.5 (.41)	3.4 (.32)
Wind Load @ 80 mph, lbs (kg)	142 (64.4)	250 (113.4)	115 (52.3)	78 (35.5)
Weight, lbs (kg)	55 (25)	92 (41.8)	47 (21.1)	38 (17.2)

**CUSHCRAFT**



# DUAL BAND RINGOS & YAGIS



Cushcraft is the leader in dual band antennas. Our verticals provide excellent coverage at a price below the competition. The AR270 and AR270B are favorites with the AO27 crowd. For increased coverage, our dual band Yagis lead the way. Both Yagis require only one coax feedline for true dual band performance.

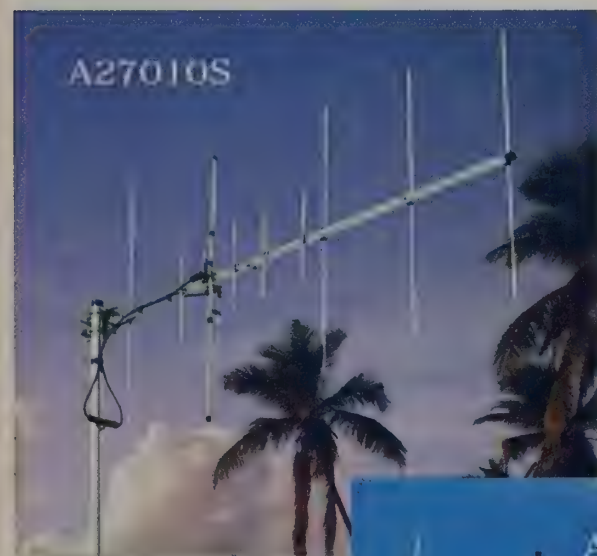
## AR270B 5.5/7.5 dB Dual Band Ringo

This model gives very high gain with a low angle of radiation and it is only 7.7 feet (2.35 m) high. The AR270B is computer optimized with two 5/8 wavelength collinear elements on 2 meters and four 5/8 wavelength elements on 70 cm. It is broadbanded for minimum SWR on both bands. It is easy to assemble with three rugged aluminum tubing sections, a durable mast mount and factory sealed coils for best performance.

## AR270

The "Dual Wonder" AR270 is only 3.75 feet (1.1 meters) high. It has great performance for its size, making it the most popular 2m/70 cm

MODEL	AR270		AR270B	
Frequency, MHz	144-148	430-450	144-148	430-450
SWR 1.2:1 Typical				
2:1 Bandwidth, MHz	>4	>15	>4	>15
Gain, dBi	3.0	5.5	5.5	7.5
Power, Watts FM	250	250	250	250
Horizontal Radiation				
Pattern, Degrees	360	360	360	360
Height, ft, (m)	3.75 (1.13)		7.7 (2.3)	
Mast Size Range, in	1.25-2 (3.2-5.1)		1.25-2 (3.2-5.1)	
Radial Length, in (cm)	6.75 (17.1)		6.75 (17.1)	
Wind Load, ft2 (m2)	0.27 (0.03)		0.47 (0.044)	
Weight, lb (kg)	2 (0.9)		2.4 (1.09)	



Cushcraft pioneered dual band side-by-side Yagis. The harmonic relationship of 2 meters and 70 cm allow clean radiation patterns with minimal interaction.



## A27010S and A2706S 10 and 7.8 dB Dual Band Yagis

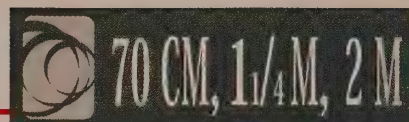
Increase your range by selecting one of the new Cushcraft dual band Yagis on 2 meters and 70 cm. You can point the antenna at stations while you are in QSO with them. This will direct more of your output power when transmitting at the same time reducing interference and increasing signal strength when receiving. These antennas are perfect for packet applications. Assembly is a snap with our fully illustrated assembly manuals.

MODEL	A27010S		A2706S	
Frequency, MHz	144-148	430-450	144-148	430-450
No. Elements	5	5	3	3
Forward Gain, dBi	10	10	7.8	7.8
Front to Back Ratio, dB	20	18	20	18
SWR 1.2:1 Typical				
2:1 Bandwidth, MHz	≥4	≥10	≥4	≥20
Power Rating, Watts PEP	350	350	350	350
3dB Beamwidth, Degrees				
E Plane	52	52	66	66
H Plane	60	60	108	108
Boom Length, ft (m)	6.17 (1.9)		2.8 (.85)	
Longest Element, in (cm)	40.3 (102.4)		41 (104.1)	
Turning Radius, ft (m)	6 (1.8)		2.8 (.85)	
Mast Size Range, in (cm)	1.25-2		1.25-2	
	(3.2-5.1)		(3.2-5.1)	
Wind Load, ft2 (m2)	.725 (.07)		.3 (.02)	
Weight, lb (kg)	1.8 (.81)		1.7 (.8)	

CUSHCRAFT



# RINGO RANGER II, RINGO RANGER, RINGO



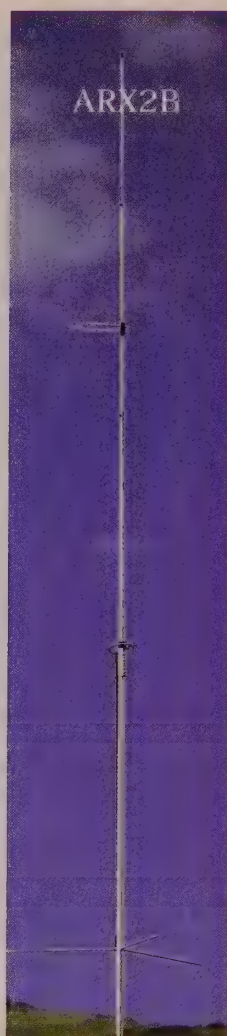
Some hams comment on the ARX2B:

"Since I put this antenna up I have received many compliments on the improvement of my signal." (N3LHP)

"The only antenna I ever installed that worked like it should the first time."

"ARX2B is a good antenna for my use on 2 meters FM...Several on the air in my area." (N9OPL)

"ARX2B...the best antenna." (XE2CLB)



## Our Ringos are Number One.

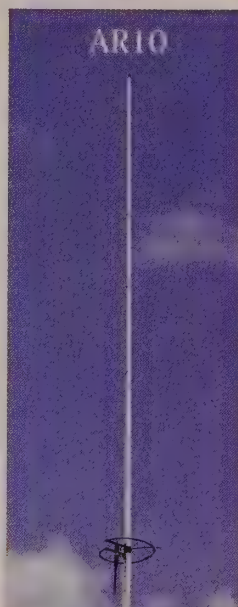
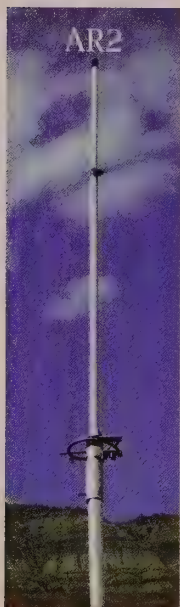
Tough performers at a good price! The Ringo family of dependable, cost-effective antennas has served more hams - from novice to veteran extra - than any other amateur antenna made. Simple, straightforward design, light weight and quick, easy installation make the durable Ringo family right for you. Ringo's top performance and low cost mean more dB per dollar - an equation anyone can appreciate.

## Ringo Ranger II

Our Ringo Ranger II has more gain, less windload, and more mechanical integrity than other two meter antennas. You'll quickly appreciate the benefits of this amazing antenna! Based on the original W1BX Ringo, the Ringo Ranger II is the latest design featuring three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub. The result is a very low angle of radiation over your coverage area.

The Ringo Ranger II has built-in lightning protection, UV-stabilized insulators, heavy wall tubing, improved decoupling radials to eliminate feedline radiation, and all-weather performance.

MODEL	ARX2B	ARX220B	ARX450B
Frequency, MHz	135-160	222-225	435-450
SWR 1.2:1 Typical			
2:1 Bandwidth, MHz	>3	>5	>10
Gain, dBi	7.0	7.0	7.0
Power Rating, Watts FM	1000	500	500
Radiation Angle, Deg.	7	7	7
Horizontal Radiation			
Pattern, Degrees	360	360	360
Ring Diameter, in (cm)	5 (12.7)	5 (12.7)	3.5 (8.9)
Radiator Base Dia, in (cm)	.75 (1.9)	.75 (1.9)	.50 (1.2)
Height, ft, (m)	14 (4.3)	9.3 (2.8)	4.9 (1.5)
Mast Size Range, in (cm)	1.0-1.25 (2.54-3.1)	1.0-1.25 (2.54-3.1)	.75-.88 (1.9-2.22)
Radial Length, in (cm)	20.5 (52.1)	13.75 (33.7)	6.75 (17.1)
Wind Load, ftz (m2)	0.5 (0.05)	0.3 (0.03)	0.2 (0.02)
Weight, lb (kg)	6 (2.7)	5 (2.3)	1 (.45)



## Ringo

These are the original W1BX FM Ringos. If you want a combination of compact size, wide bandwidth, a low radiation angle, these economical antennas are just for you. Since radials are not needed, you can even use our Ringos indoors. Our Ringos are 1/2 wave and include built-in lightning protection. Put up one of these easily installed antennas and start enjoying FM!

MODEL	AR2	AR6	AR10	AR450
Frequency, MHz	135-160	50-54	28-29.7	440-460
SWR 1.2:1 Typical				
2:1 Bandwidth, MHz	10	2	>1.5	20
Gain, dBi	3	3	3	3
Power Rating, Watts FM	1000	1000	1000	500
Radiation Angle, Deg.	16	16	16	16
Horizontal Radiation				
Pattern, Degrees	360	360	360	360
Ring Diameter, in (cm)	5 (12.7)	13 (33)	13 (33)	3.5 (8.9)
Radiator Base Dia, in (cm)	.75 (1.9)	1 (2.5)	1 (2.5)	.5 (1.3)
Height, ft, (m)	3.9 (1.2)	10.1 (3.1)	17.6 (5.36)	1.4 (.43)
Mast Size Range, in (cm)	1-1.25 (2.54-3.1)	1-1.25 (2.54-3.1)	1-1.25 (2.54-3.1)	.75-.88 (1.9-2.22)
Wind Load, ftz (m2)	.21 (.02)	.37 (.03)	1.68 (.16)	.1 (.01)
Weight, lb (kg)	1.5 (.68)	2.5 (1.1)	4 (1.8)	1 (.45)

CUSHCRAFT





## 6176B

The 6176B is the favorite 6 meter contest/DX antenna for all the "Big guns". Extra wide element spacing gives maximum gain and a clean pattern. Even with a 34 foot (10.4m) boom, the 6176B weighs only 26 pounds (11.8 kg).



## 10 Meters

Looking for a lightweight, economical alternative to the 10 meter big boys? Choose the TEN3. Although it's popular with novices and technicians, this antenna is for any ham who wants more gain with a good front to back ratio on 10 meters. This antenna has an 8 foot boom (2.4m) making it easy to install on a very simple mount with only a light rotator. The matching system is our proven Reddi-Match for 50 Ohm no balun feed and SO-238 connector. Make more positive contacts with the TEN3.

## 6 Meter Yagis - SSB/CW/FM

Computer-aided modeling and test range techniques were used by Cushcraft engineers to further optimize the performance of our popular 6 meter Yagis. This process means more gain and cleaner patterns with excellent front-to-back ratios. S-models have very broad bandwidth so they will not detune in bad weather. They feature stainless steel hardware for long trouble-free life. Enjoy the new popularity and exciting contacts on the 6 meter band with one of the S-series Cushcraft Yagis. The A503S, A505S and A506S may be mounted vertically for FM use.



MODEL	A503S	A505S	A506S	6176B	TEN3
Frequency, MHz	50-54	50-54	50-54	50-51	28-29.7
No. Elements	3	5	6	6	3
Forward Gain, dBi	8	10.5	11.6	14.0	8
Front to Back Ratio, dB	20	24	26	30	25
SWR 1.2:1 Typical					
2:1 Bandwidth, MHz	>1	>1	>1	>1	>1.5
Power Rating, Watts PEP	1000	1000	1000	2000	2000
3dB Beamwidth, Degrees					
E Plane	76	56	48	2 x 19	64
Boom Length, ft (m)	6 (1.8)	12 (3.7)	20 (6.1)	34 (10.36)	8 (2.44)
Longest Element, in (cm)	117 (300)	123 (312)	119 (302)	117 (297.2)	18 (5.49)
Turning Radius, ft (m)	6 (1.8)	7.8 (2.37)	11.5 (3.5)	17.7 (5.39)	9.8 (3.0)
Mast Size Range, in (cm)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)
Wind Load, ft2 (m2)	1.80 (0.17)	2.9 (0.273)	4.46 (.41)	4.8 (.45)	2.0 (.20)
Weight, lb (kg)	7 (3.2)	11 (5.0)	18 (8.2)	26 (11.79)	9.9 (4.45)



# BOOMER SIDEBAND/CW YAGIS



## 2 Meters

13B2

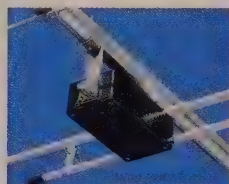


### 13B2 - 13 Element Wideband Boomer

The 13B2 is as versatile as the 17B2 is specialized. 13B2 will be your choice for high performance across the entire 2 meter band. New and experienced hams will enjoy 15.8 dBi gain on FM, packet, CW, or sideband across the 4 MHz operating range. The 13B2 is easily mounted vertically or horizontally for maximum performance on your favorite mode. Its optimum boom length makes it a popular antenna that fits just about anywhere. The new UltraMatch balanced feed on the 13B2 provides a 50 Ohm match via a standard SO-239 UHF female connector. Model **13B2N** has N connector.

### 17B2 - 17 Element CW/SSB Boomer

The serious two meter operator who is interested in EME, aurora, scatter, SSB, CW, tropo etc, will choose the 17B2. It has 17 elements on a 4.5 wavelength boom. Our computer-aided design supported by precise test range data and the latest manufacturing technology gives you a cleaner pattern and 18 dBi gain in this long boom design. Significant enhancement is provided by the new UltraMatch balanced feed system with N-connector.

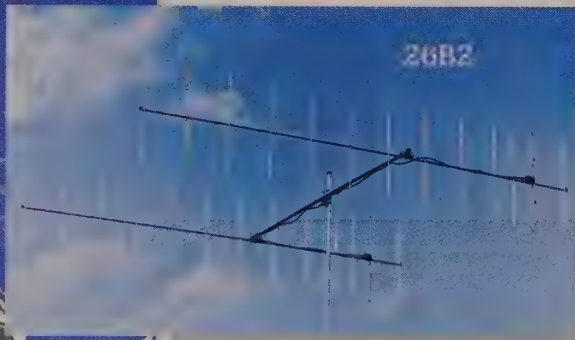


The new Cushcraft UltraMatch is a modified T-match system that provides a balanced current distribution on your Boomer. It uses UltraLink teflon® dielectric cable allowing for low loss high power applications. UltraMatch is completely enclosed for weather proofing. UltraMatch features an N-connector on the 17B2 and UHF SO239 on the 13B2. When all weather performance is important, you will choose the new UltraMatched Boomers everytime.

17B2



26B2



### 26B2 - 26 Element Wideband Boomer

This antenna offers the highest gain of any 2 meter FM antenna in the world. The 26B2 includes two complete 13B2 antennas, stacking boom and

### 124WB - 4 Element Wideband Boomer

This is the right choice for packet systems and other applications requiring a dedicated directional



124WB

### A14810S & A1483S 2M Yagis

These antennas are the newest computer optimized models of our 2 meter Yagis. We have improved both the pattern and gain to give you better FM coverage.

The A1483S is the low priced quality leader for Packet, FM or even portable use. It is easily rear mounted.

A14810S is one of our best value designs with excellent gain and front-to-back ratio. Use it for long range FM or full band 2 meter operation.



MODEL	13B2	17B2	124WB	26B2	A1483S	A14810S
Frequency, MHz	144-148	144-145	144-148	144-148	144-148	144-148
No. Elements	13	17	4	26	3	10
Forward Gain, dBi	15.8	18.0	10.2	18.8	7.8	13.2
Front to Back Ratio, dB	26	26	19	26		
SWR 1.2:1 Typical						
2:1 Bandwidth, MHz	>4	>2	4	>4	>5	≥4
Power Rating, Watts PEP	2000	2000	2000	2000	1000	1000
3 dB Beamwidth, Degrees						
E Plane	2 x 18	2 x 14.5	60	2x18	66	40
H Plane	2 x 19	2 x 15	88	2x9.5	108	46
Side Lobe Atten., dB, E Plane	>60	>60	40	>60		
Boom Length, ft (m)	15 (4.57)	31 (9.45)	4 (1.22)	15 (4.57)	2.8 (.85)	12 (3.6)
Electrical Wavelength	2.2	4.5	.5	2.2		
Longest Element, in (cm)	39.75 (101)	40.75 (103.5)	40.75 (104)	39.75 (101)	41 (104.1)	40.3 (102.4)
Turning Radius, ft (m)	8.9 (2.7)	17.25 (5.26)	4 (1.22)	10.4 (3.18)	2.8 (.8)	6 (1.8)
Mast Size Range, in (cm)	1.5-2	1.5-2	1.25-2	1.5-2	1.25-2	1.25-2
	(3.8-5.1)	(3.8-5.1)	(3.2-5.1)	(3.8-5.1)	(3.2-5.1)	(3.2-5.1)
Wind Load, ftz (m2)	1.8 (.17)	3.9 (.36)	.34 (.034)	4.84 (.45)	.27 (.02)	1.21 (.11)
Weight, lb (kg)	6.7 (.31)	15.75 (7.14)	3 (1.36)	21.5 (9.75)	1.5 (.7)	6 (2.7)

CUSHCRAFT



## A14820T 2 Meter Hi-Lo Cross Yagi

Here's the antenna that solves multi-mode problems! Ten vertically polarized and ten horizontally polarized elements provide 11.1 dBi gain covering 144-148 MHz. The horizontal elements handle your CW and SSB needs, while the vertical elements cover FM. Hardware is stainless steel. Separate coax feeds allow polarization changes.

A14820T has a boom length of 11 ft. (3.4m), longest element length of 40.6 in. (103cm), wind area of 1.21 ft<sup>2</sup> (.11m<sup>2</sup>), and a mast size of 1.25-2 in. (3.2-5.1 cm).



## 224WB/225WB 220 MHz Widebands

These 222 MHz beams are perfect for Packet, FM repeaters, or sideband/CW. Both antennas can be mounted for vertical or horizontal polarization.



## A4496S/A44911S

Use one of these 440 MHz beams for your FM/Packet needs. Both work great for vertical or horizontal polarization.



## 719B FM, CW and SSB 15.5 dBi

Looking for an antenna to enhance performance on all modes of the 70 CM band? The 13.5 foot long 719B is the right choice. Mount it vertical for FM or horizontal for CW and Sideband. The 719B joins the 2 meter 13B2 as a classic for improved performance.

MODEL	224WB	225WB	A14820T
Frequency, MHz	222-225	222-225	144-148
No. Elements	4	15	10/10
Forward Gain, dBi	10.2	15.5	13
Front to Back Ratio, dB	24	24	24
SWR 1.2:1 Typical			
2:1 Bandwidth, MHz	>5	>5	>4
Power Rating, Watts PEP	2000	2000	1000
3dB Beamwidth, Degrees			
E Plane	60	2x17	45
H Plane	88	2x19	50
Side Lobe Attenuation, dB E Plane	40	60	40
Boom Length, ft (m)	3 (.91)	10 (3.05)	11(3.4)
Electrical Wavelength	0.5	2.2	1.6
Longest Element, in (cm)	26.7 (68)	26.3 (67)	40.6 (103)
Turning Radius, ft (m)	3 (.91)	5.8 (1.78)	7.5 (2.3)
Mast Size Range, in (cm)	1.25-2	1.25-2	1.25-2
	(3.2-5.1)	(3.2-5.1)	(3.2-5.1)
Wind Load, ft <sup>2</sup> (m <sup>2</sup> )	.23 (.021)	.95 (.09)	0.39(0.11)
Weight, lb (kg)	1.7 (.77)	5.25 (2.4)	7 (3.15)

MODEL	719B	729B	A4496S	A44911S
Frequency, MHz	430-450	430-440	440-450	440-450
No. Elements	19	29	6	11
Forward Gain, dBi	15.5	17.8	10.5	13.2
Front to Back Ratio, dB	25	25	18	20
SWR 1.2:1 Typical				
2:1 Bandwidth MHz	20	>10	>10	>10
Power Rating, Watts PEP	2000	2000	350	350
3 dB Beamwidth, Degrees				
E Plane	24	20	60	48
H Plane	19	22		
Side Lobe Atten., dB, E Plane	60	60		
Boom Length, ft (m)	13.5 (4.1)	22.17 (6.75)	2.9 (0.89)	4.2 (1.35)
Electrical Wavelength	6	9.8		
Longest Element, in (cm)	13.75 (34.9)	13.75 (34.9)	13 (33)	13 (33)
Turning Radius, ft (m)	7.25 (2.2)	12.5 (3.8)	2.9 (.89)	2.8 (.85)
Mast Size Range, in (cm)	1.25-2	1.25-2	1.25-2.0	1.25-1.5
	(3.2-5.1)	(3.2-5.1)	(3.2-5.1)	(3.2-3.8)
Wind Load, ft <sup>2</sup> (m <sup>2</sup> )	1.2 (.11)	2.2 (.21)	0.30 (0.03)	0.39 (0.04)
Weight, lb (kg)	5.6 (2.55)	8.6 (3.9)	3 (1.4)	4 (1.8)

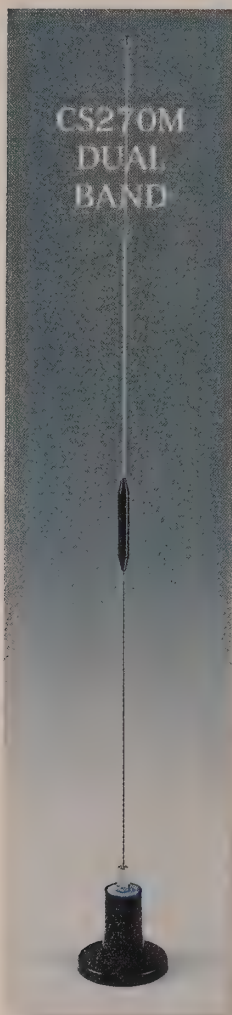


# MOBILE ANTENNAS

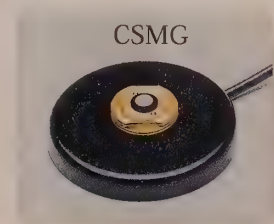
**70 CM-10 Meters**

Cushcraft mobiles offer the high performance that you need for consistent mobile communications such as commuting and public service activities. These antennas are the choice of hams and communications professionals around the world who demand high quality, premium products.

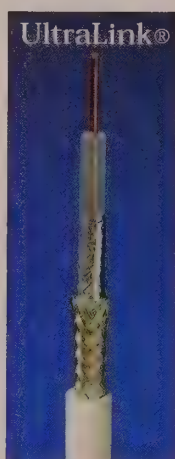
SEE YOUR LOCAL DEALER'S CUSHCRAFT MOBILE DISPLAY



BLACK MAG MOUNT



TRUNK LIP MOUNT



## CS270M Dual Band Mag-Mount

The CS270M 2 meter/70 cm dual band mobile antenna leads the industry in performance, quality and value. The weather sealed base, stainless whip, enclosed coil and 90 pound pull magnet at such a low price is a real bargain.

## CSMG Magnetic Mounts

Cushcraft mag-mounts stay where you put them. Our 90 and 165 pound pull magnets are the best you'll find. Euro-style black poly finish protects against rust, and a tough rubber pad gives maximum protection to your vehicle's finish.

® cable on all Cushcraft mobile antennas means more of your signal reaches your antenna every time you key the mike.

## CS28M Ten Meter Mag-Mount

The CS28M ten meter mag-mount has become a constant companion to today's popular 10 meter multimode mobile rigs. The CS28M comes complete, ready to go with a 49" stainless steel whip and a Euro-Style black poly-coated 90 pound pull magnet. A heavy rubber pad protects your car's finish; twelve feet of Cushcraft's own UltraLink® low-loss cable (specifically designed for commercial mobile applications to 900 MHz) and PL259 connector are included with the CS28M.

## CS Series Economy Mobile Antennas

Cushcraft's years of commercial and amateur experience apply cutting-edge designs to consistently high quality materials to produce the best mobile antennas you can buy.

All inductors and coil contacts are silver plated for better RF conductivity. All Cushcraft mobile hardware is brass to prevent the seizing inherent with inferior, dissimilar-metal joints. Our mobile coil housings are ABS, impervious to temperature changes and ultraviolet radiation. Brass base threads, ultrasonically welded into coil housings, eliminate premature failures associated with inferior fastening techniques, and Cushcraft insert-molded 440 MHz phasing coils assure weather-tight integrity. Only Cushcraft mobile antenna mounts are entirely 50 Ohms, eliminating lossy "VSWR bumps" common in many well known

## UltraLink® Cable

Cushcraft UltraLink cable was designed specifically for high efficiency commercial mobile applications to 900 MHz. UltraLink's RG-58 size allows easy installation through the tightest openings, while its Teflon® dielectric provides the highest temperature tolerance to handle vehicle hot-spots that would melt other dielectric materials. Additional 100% shielding is provided by a jacket of easy-peel foil. All this is covered by 97% braid for easy, secure connector attachment. More of your signal will get through with UltraLink than with any other mobile cable.

Model No.	Frequency MHz	Whip Length Inches	Whip Length Meters	Description
Dualband 2m/70cm				
CS270A	144-148 & 430-450	34	0.86	NMO mount required
CS270M	144-148 & 430-450	34	0.86	NMO, includes Magnet Mount
10 Meters				
CS28M	28-30	49	1.25	NMO, includes Magnet Mount
6 Meters				
CS50M	46-54	49	1.25	NMO, includes Magnet Mount
2 Meters				
CG144A	144-148	49	1.25	NMO mount required
CS147A	144-148	49	1.25	NMO mount required
CS147M	144-148	49	1.25	NMO, includes Magnet Mount
222 MHz				
CS220M	222-225	33	0.84	NMO, includes Magnet Mount
440 MHz				
CS450M	430-450	29.5	0.75	NMO, includes Magnet Mount
Mobile Mounts				
CSMG	90 lb pull magnet, NMO mount, PL259 & 12 feet UltraLink Cable			
CSMGN	90 lb pull magnet, NMO mount, N connector & 12 feet UltraLink Cable			
For "Gold" Antennas				
CGMGN	165 lb pull magnet, NMO mount, N connector & 12 feet UltraLink Cable			
CSTL	Trunk lid mount, NMO mount, PL259 & 12 feet UltraLink Cable			

**CUSHCRAFT**

Cushcraft Corporation, Manchester, NH



# ACCESSORIES



## Fast Acting Gas Discharge Lightning Arresters

Protect your valuable equipment from unplanned current surges with a Cushcraft constant impedance LAC4 arrester! The LAC4 has a replaceable gas discharge tube which clamps voltage surges to less than 50 volts in about 100 nanoseconds-much quicker than the voltage rise time of lightning.

You cannot afford to be without lightning protection. One of the models below is right for your shack.

**With UHF connector models - 1 MHz to 500 MHz.**

**With N connector models - 1 MHz to 3000 MHz**

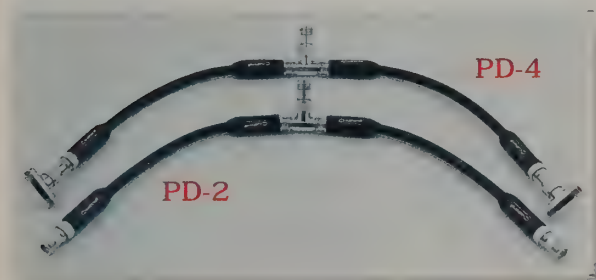
LAC4	200 Watt with UHF SO-239 connectors
LAC4H	2 kW with UHF SO-239 connectors
LAC4N	200 Watt with N connectors
LAC4NH	2 kW with N connectors
LC2	200 Watt replacement cartridge
LC2KW	2 kW replacement cartridge



## Power Dividers For Boomers

Our power dividers make it a snap to stack Cushcraft Boomers. Models for 17B2 have N-connectors. They are available for these antennas:

PD-2	for two 13B2, UHF connectors
PD-4	for four 13B2, UHF connectors
PD-4N	for four 17B2, N connectors



## Stacking Harnesses For Boomers

For even easier installation of our Boomers, use our installation kits that are complete with harness and power divider. Models for 17B2 have N-connectors.

22-SK	for two 13B2's
22N-SK	for two 17B2's
26B2VPK	stacking kit for two 13B2's. Harnesses, stacking boom and hardware included.

- ▶ One year warranty backed by our 40 years of antenna experience.
- ▶ Cushcraft antennas are designed to survive 80 mph (129 kph) winds unless
- ▶ For safe antenna installations, avoid contact with powerlines.
- ▶ The use of lightning arresters is highly recommended.
- ▶ Stainless steel hardware and high grade seamless 6063-T832 tubing used in all antennas.
- ▶ Support mast, feedline and RF chokes are not included with antennas.
- ▶ Specifications are subject to change without notice.
- ▶ All Cushcraft antennas are available through dealers worldwide.

## BOOMER STACKING INFORMATION

Antenna	2x617-6B	2x13B2	4x13B2	2x17B2	4x17B2
Forward Gain, dBi	17.0	18.8	21.8	21.0	24.0
Front/Back Ratio	30	24	24	24	24
E-Plane Beamwidth, deg	2x17.5	2x18	2x9	2x14.5	2x7.3
H-Plane Beamwidth, deg	2x10	2x9.5	2x9.5	2x7.5	2x7.5
Vert, ft	26	9.2	9.2	11.5	11.5
(m)	7.92	2.8	2.8	3.5	3.5
Horiz, ft	-	-	9.6	-	12
(m)	-	-	3.0	-	3.7
Approximate Wt, lb	62	22	44	32.5	115
(kg)	28.12	10.00	20.00	14.8	52.3

CUSHCRAFT

Cushcraft Corporation, Manchester, NH



# DIAMOND ANTENNAS

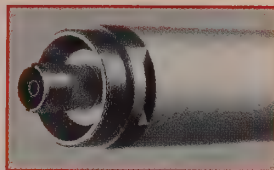
The Standard By Which All Others Are Judged.

Acclaimed as the technological leader in single & multiband antennas

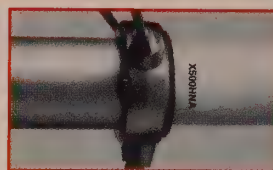
- Wide-band Performance • Factory Adjusted—No Tuning Required • Highest Gain
- UPS Shippable • High Wind Rating • Fiberglass Radome • DC Grounded • Stainless Hardware

## X500HA (UHF-Conn.) X500HNA (Type-N Conn.)

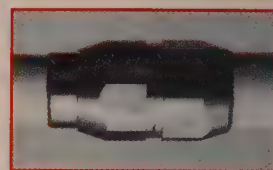
**Ruggedized  
Base/Repeater  
Antenna**



COAX CONNECTION  
AT BASE END



HEAVY DUTY BASE/  
RADIAL ASSEMBLY



STRONG JOINT  
COUPLINGS

### DIAMOND Mono-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
CP22E <sup>1</sup>	144	6.5	200	UHF	9.0	90
DPGH62 <sup>1,6</sup>	50	6.0	200	UHF	21.0	78
F22A	144	6.7	200	UHF	10.5	112
F23A	144	7.8	200	UHF	15.0	90
F142A	222	5.5	150	UHF	6.0	110
F718A <sup>2</sup>	440	11.5	250	N	15.0	90
F1230A	1240	13.5	100	N	10.5	90

### DIAMOND Dual-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
X50A	144/440	4.5/7.2	200	UHF	5.6	135
X50NA	144/440	4.5/7.2	200	N	5.6	135
X200A	144/440	6.0/8.0	200	UHF	8.3	112
X300A	144/440	6.5/9.0	200	UHF	10.2	112
X510NA <sup>3</sup>	144/440	8.3/11.7	200	N	17.2	90
X510MA	144/440	8.3/11.7	200	UHF	17.2	90
X500HNA	144/440	8.3/11.7	200	N	17.8	90+
X700HNA	144/440	9.3/13.0	200	N	24.0	90
X2200A	144/222	6.0/7.8	150	UHF	11.5	112
U200	440/1240	8.3/11.7	100	N	5.9	135

### DIAMOND Tri-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
U5000A	144/440/1240	4.5/8.3/11.7	100	N	5.9	135
V2000A <sup>4,6</sup>	52/144/440	2.1/6.2/8.4	150	UHF	8.3	110
X3200A <sup>5</sup>	146/222/440	6.0/7.8/8.0	100/200	UHF	10.5	112
X6000A	144/440/1240	6.5/9.0/10.0	100/60	N	10.5	112

<sup>1</sup> Heavy duty aluminum construction.

<sup>2</sup> F-718A: 440-450MHz, F-718L: 430-440MHz, F-718L: 420-430MHz.

<sup>3</sup> X510N: 144-147/430-440MHz.

<sup>4</sup> 1/4λ rated in dBi.

<sup>5</sup> 2m: 146-148; 100 watts

<sup>6</sup> 52-54MHz. only; DPGH62 adjustable from 50-54MHz.

Most requirement: 1.4" 2.4"

BAND: 144=144-148MHz, 222=222-225MHz, 420=420-430MHz, 430=430-440MHz, 440=440-450MHz, 1240=1240-1300MHz.

#### X50NA

The X50NA is an excellent choice where ruggedness is required in a medium-gain, dual-band, base/repeater application.

#### Features

- Wide frequency bandwidth
- Heavy duty fiberglass radome
- Stainless steel mounting hardware and radials
- Type-N Cable connection
- Compact size for easy mounting/installation

#### Specifications:

Freq.: 2m: 144-148MHz  
70cm: 440-450MHz  
Gain: 2m: 4.5dB; 70cm: 7.2 dB  
Power: 200 watts  
Wind Rating: 135 MPH (no ice)  
Height: 5.6 feet



X50NA



X500HNA

#### X500HNA

Diamond Antenna's best base station repeater antenna. Designed for strength and performance, the X500HNA is pretuned to achieve maximum gain in both the 2m and 70cm amateur bands.

#### Features

- Heavy duty fiberglass radome
- Overlapping outer shells for added strength
- Stainless steel mounting hardware and radials
- Strong—waterproof joint couplings
- Type-N Cable connection
- Wide band performance

#### Specifications:

Freq.: 2m: 144-148MHz  
70cm: 440-450MHz  
Gain: 2m: 8.3dB; 70cm: 11.7 dB  
Power: 200 watts  
Wind Rating: 90 MPH (no ice)  
Height: 17.8 feet

[www.rfparts.com/diamond](http://www.rfparts.com/diamond)

Diamond Antenna Division of RF Parts Co. Tel: (760) 744-0900 • FAX: (760) 744-1943 • E-mail: [rfp@rfparts.com](mailto:rfp@rfparts.com)



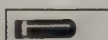
# DIAMOND Antenna Accessories

**High Efficiency HT & Scanner Antennas**  
**HF Multiband Vertical Antenna**  
**Duplexers & Triplexers**  
**Dummy Loads & Coaxial Switches**

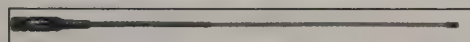
## RH Series

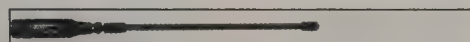
High quality, high gain HT antennas for mono, dual, and tri-band handheld radios. Available in both BNC and SMA connections. Increase the performance on your handheld or wideband scanner with a Diamond RH Series antenna.

**RH3**

**SRH805**


SMA

**RH77CA**

**RH951S**

**RH707**

**RH205**

**SRH519 &  
SRH815**


SMA

MODEL	DESCRIPTION	RELATIVE GAIN*
D130J	Wideband discone 25-1300 MHz. 200 W transmit 50-1300 MHz. No cable.	N/A
RH3	2m/70cm dual band "Black Bullet" HT antenna. 1.75" BNC. 120 to 900 receive	-2 dB
RH77CA	High gain 2m/70cm dual band HT antenna. Receive range to 900 MHz. BNC.	+6 dB
RH205	2m HT antenna, telescopic, 5/8λ, fully extended, 47.5"; 1/4λ, retracted, 9"	+9 dB
RH519	2m/70cm slim dual-band HT antenna. Flexible. 8" BNC, 10 watts.	+3 dB
RH707	2m/70cm dual-band -tiltable whip -- HT antenna. 8 1/4" BNC.	+3 dB
RH951S	High gain 2m/70cm/23cm slim tri-band HT antenna. Flexible. BNC (Wide band receive)	+6 dB
SRH519	2m/70cm dual-band HT antenna. Flexible. 8" SMA, 10 watts.	+3 dB
SRH805	2m/70cm/23cm tri-band HT antenna. 1.75" SMA, 10 watts.	-2 dB
SRH815	2m/70cm/23cm tri-band HT antenna. Flexible. 6" SMA, 10 watts.	+3dB

\*Rated against typical stock HT antennas.

## CP SERIES HF MULTIBAND VERTICAL

The CP5 and CP6 are multi-band trap-vertical antennas for HF bands, covering the 80\*, 40, 20, 15 and 10m amateur bands. The CP6 also includes 6m band. Made from heavy-duty aluminum, the CP5 and CP6 are easily assembled, yielding excellent performance and reliability from a compact base station antenna. No additional ground radials required. Mounting hardware included.

\*80m CW only. SSB requires a tuner.

### Specifications

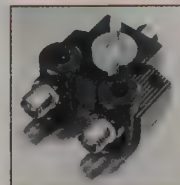
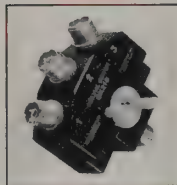
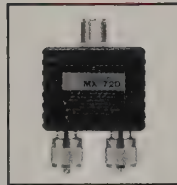
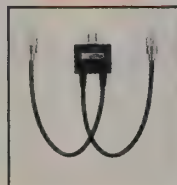
Frequency:	CP5 80*/40/20/15/10m CP6 80*/40/20/15/10/6m
Power:	200w PEP
Impedance:	50Ω
VSWR:	1.5:1 nominal
Element:	1/4 wave trap vertical
Radials:	Trap design CP5 - five CP6 - six
Grounding:	Direct grounding. Antenna element & radials connected to mounting pipe.
Max. Wind Rating:	80mph (no ice)
Max Diameter	
Accutance:	1.2-2.4"
Overall Length:	15.10' (4.6m)
Weight:	9.9lbs. (4.9kg)
Connector:	SO-239 female UHF
Bandwidth:	80m 20kHz (for nominal 40m 40kHz 1.5:1 VSWR 20m 100kHz without 15m 200kHz antenna 10m 500kHz tuner) 6m 3.5MHz

**NEW**

6m  
10m  
15m  
20m  
40m  
80m\*

## Duplexers/Triplexers

**DL30A/DL30N**

**CX210A/CX210N**

**CX310A**

**MX-720**

**MX-72H/N**


MODEL	DESCRIPTION
CX210A	Heavy duty wideband coax switch, DC-1000 MHz. 1.5 kW, SO-239
CX210N	Heavy duty wideband coax switch, DC-1500 MHz. 1.5 kW, Type N
CX310A	Heavy duty wideband coax switch, 3 position, DC-800MHz, SO-239
DL30A	Dummy load, DC-500 MHz. 15w average/100w peak. PL-259
DL30N	Dummy load, DC-500MHz. 15w average/100w peak. Type N

MODEL	MX72D	MX72H	MX72N	MX2000	MX2000D
FREQUENCY BAND (MHz)	LPF 1.6-30	140-150	HPF 400-460	LPF 1.6-60	BPF 110-170 HPF 300-950
PWR CW (ICAS) WATTS P.E.P.	400 1000	150 400	100 250	800 800	500
THRU LOSS/dB	0.15	0.15	0.25	0.15	0.2 0.25
ISOL		60dB		60dB	
VSWR		1.2:1		1.2:1	
CONNECTOR COMPLEMENT	MIX 144 430	MIX 144 430	MIX 144 430	SO 144 430	SO 144 430
CONNECTOR	Direct	12" Cable w/Connectors	12" Cable w/Connectors	Direct	

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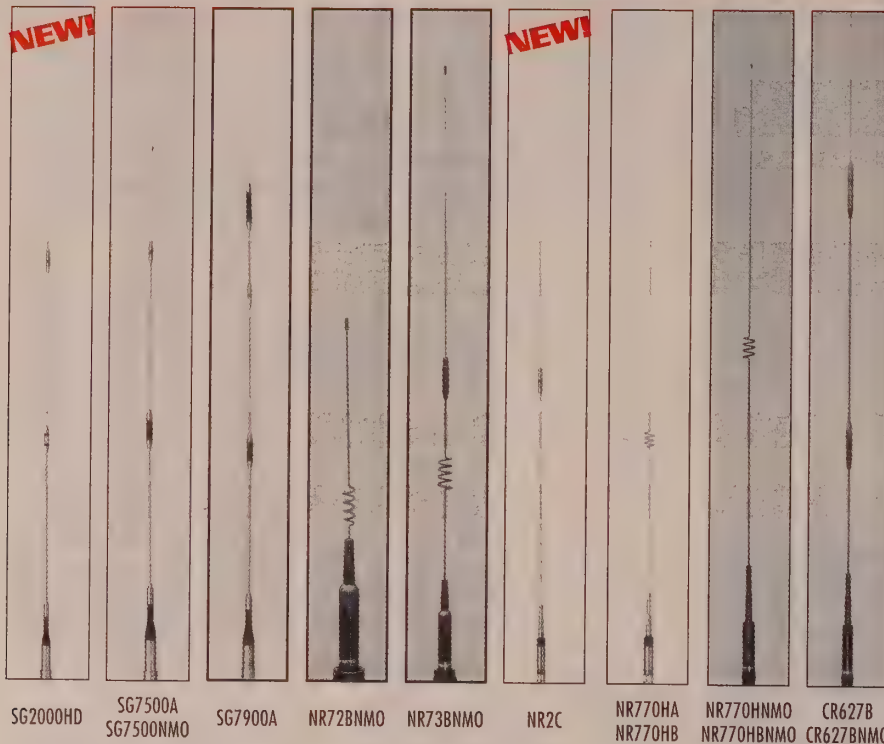
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# DIAMOND'S STATE-OF-THE-ART

VHF/UHF And HF/VHF Mobile Antennas—  
Maximum Performance Without Compromise

**You've seen the rest...now own the BEST!**



SG2000HD SG7500A SG7500NMO SG7900A NR72BNMO NR73BNMO NR2C NR770HA NR770HB NR770HNMO NR770HBNMO CR627B CR627BNMO

## SPECIAL FEATURES:

- Factory pre-tuned/no adjustment
- Highest Performance antennas
- NMO and UHF (PO) base styles
- 24 Kt gold plated connector pin
- No grounding required unless noted
- Fold-over feature on most models

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. IN.	ELEMENT PHASING
NR72BNMO*6	2m/70cm	2.15	100	NMO	13.8	1/4λ, 1/2λ
NR73BNMO	2m/70cm	2.15/5.3	100	NMO	33.5	1/2λ, 1-5/8λ
NR770SA*6	2m/70cm	2.15/2.15	100	UHF	16.9	1/4λ, 1/2λ
NR770HA7	2m/70cm	3.0/5.5	200	UHF	40.2	1/2λ, 2-5/8λ
NR770HNMO8	2m/70cm	3.0/5.5	200	NMO	38.2	1/2λ, 2-5/8λ
NR770RA	2m/70cm	3.0/5.5	200	UHF	38.6	1/2λ, 2-5/8λ
NR790A*	2m/70cm	4.5/7.2	120	UHF	57.5	6/8λ, 3-5/8λ
SG7000A*6	2m/70cm	2.15/3.8	100	UHF	18.5	1/4λ, 6/8λ
SG7200NMO	2m/70cm	3.2/5.7	150	NMO	36.6	1/2λ, 2-5/8λ
SG7500A	2m/70cm	3.5/6.0	150	UHF	40.6	1/2λ, 2-5/8λ
SG7500NMO	2m/70cm	3.5/6.0	150	NMO	41.0	1/2λ, 2-5/8λ
SG7900A*	2m/70cm	5.0/7.6	150	UHF	62.2	7/8λ, 3-5/8λ
SG9600*6,9	6m/2m/70cm	-2.15/5.2	60	UHF	33	1/4λ, 1/2λ, 2-5/8λ

1/4λ, rated in dBi.

## MV3A Mobile Antenna System

For New HF/VHF transceivers.

### Optional Loading Coils

HVC7	40m
HVC14	20m
HVC18	17m
HVC21	15m

Recommended Antenna  
Mounts: K400C or K600M

### MX62M Duplexer

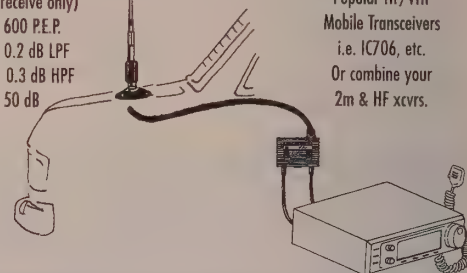
Specifications:  
HF/6m & 2m bands  
1.6-56 MHz LPF  
76-470 MHz HPF  
(76-120 receive only)  
Watts: 600 P.E.P.  
Loss: 0.2 dB LPF  
0.3 dB HPF  
Isol.: 50 dB

MV3A has 4 band capability -2m, 6m, plus two HF bands through use of loading coils.

Bands Supplied: 10m/6m/2m  
Opt. Loading Coils: 40m/20m/17m/15m  
Power, P.E.P.: HF 120w/VHF 200w  
Mount Connection: UHF  
Length: 57"  
SWR: 1.5:1 nominal

### MX62M

Popular HF/VHF  
Mobile Transceivers  
i.e. IC706, etc.  
Or combine your  
2m & HF xcvrs.



COMING Summer 99 • HV7 Multiband Antenna • HF/6m/2m/70cm  
For Icom IC706MKIIG and Yaesu FT100



## FOLD-OVER

Patented One-Touch Fold-over Feature  
(Not available on NR72BNMO, NR73BNMO, & NR770SA.)

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. IN.	ELEMENT PHASING
NR2C	2m	4.1	150	UHF	55.5	1/2λ+1/4λ
SG2000HD*	2m	5.2	250	UHF	62.6	1/2λ+3/8λ
SG6000NMO*6,9	6m	2.1	150	NMO	39	1/4λ
NR140A	1-1/4m	3.8	100	UHF	36.2	5/8λ
NR124	23cm	8.4	100	N	25	4-5/8λ
CR214S*6	2m/1-1/4m	2.15/3.4	120	UHF	37	1/2λ, 5/8λ
CR224A*6	2m/1-1/4m	5.0/6.0	150	UHF	68.5	7/8λ, 2-5/8λ
CR320A*6	2m/1-1/4m 70cm	2.15/3.8/ 5.5	200 100/200	UHF	37.4	1/4λ, 1/2λ, 2-5/8λ
CR627B*6,9 CR627BNMO*6,9	6m/2m/ 70cm	2.1/4.5/ 7.2	120	UHF NMO	60	1/4λ, 1/2+1/4λ/ 2-5/8λ
NR2000NA	2m/70cm 23cm	3.15/6.3/ 9.7	100	N	39	1/2λ, 2-5/8λ, 5-5/8λ

\* Not recommended for Magnet Mount

6 Grounding required.

7 NR770HB same specifications but in black finish.

8 NR770HBNMO same specifications but in black finish.

9 52-54MHz only

[www.rfparts.com/diamond](http://www.rfparts.com/diamond)

Diamond Antenna Division of RF Parts Co. Tel: (760) 744-0900 • FAX: (760) 744-1943 • E-mail: [rfp@rfparts.com](mailto:rfp@rfparts.com)



# DIAMOND'S Premium Antenna Mounts & Cable Assemblies

Designed for today's high performance antennas

## K9000 Motorized Mount

Raise and lower your antenna with a touch of the button with Diamond's K9000 motorized mount.



- K9000TM. Trunk & hatchback installations.
- K9000LRM. Luggage rack installations.
- Accepts "Ground Independent" Antennas up to 45" Length.
- 0-90° Range. Operates from 12VDC with fused cigarette plug.
- Compatible with Diamond C-Series Base/cable assemblies.
- Recommended Antennas: SG7200NMO, SG7500NMO, NR73BNMO, SG7500A, NR2C & NR770 Series.

## K601 Hide-away Antenna Mount

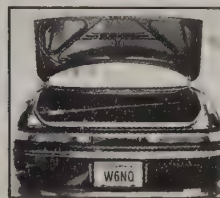
As easy as 1, 2, 3— the K601 Hide-Away Mount folds antenna safely into the trunk. Fully adjustable, fits most vehicles.



### K601 HIDE-AWAY TRUNK MOUNT

Color: Black. Choice of NMO or UHF base.

Recommended antennas: NR2C, NR73BNMO,



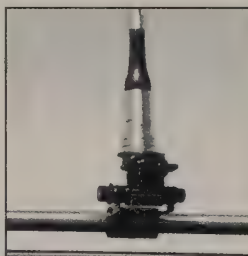
NR770HNMO, NR770HA, NR770HBNMO, NR770HB, NR770RA, SG7200NMO, SG7500A & SG7500NMO  
**K601M**—UHF Base  
**K601NMO**—NMO Base  
**C110** 10' extension cable for front radio installations



## K600 Variable Angle Trunk Mount

Deluxe aerodynamic trunk mount. Vertical adjustment range 0-9°. Four set screw, stainless steel mount assembly.

**K600M** S0-239 base, 16.5' coax & PL-259  
**K600P** S0-239 base, 16.5' coax & type N



## K550 Luggage Rack Mount

Adjustable luggage rack mount for new mini vans.

**K550KM** S0-239 base, 16.5' coax & PL-259  
**K550** Mount Only



## K702M

### Magnet Mount Base

Deluxe low profile magnet mount with high holding power. Aerodynamic styling, large 6 3/8" diameter, 3/4" height. For VHF/UHF antennas up to 50" height. Includes thin mylar protective sheet to enhance grip and protect vehicle paint. Cable: 13' RG58A/U & PL-259.

## K400 Hatchback/Door Truck Lid Mount

Diamond's deluxe heavy duty mount. Two-axis adjustable. Recommended for high gain VHF/UHF antennas.

**K400C\*** S0-239 base, 6.5' coax & PL-259  
**K400CNMO\*** NMO base, 6.5' coax & PL-259  
**K400N** Type-N base, 13.5' coax & Type N



## K540 Mirror/Luggage Rack Mount

Adjustable Mirror/Luggage rack mount accepts 1/2" to 7/8" tubing. Fits most mirrors and utility racks.

**K540KM** S0-239 base, 16.5' coax & PL-259  
**K540** Mount Only



## C-SERIES CABLE ASSEMBLIES

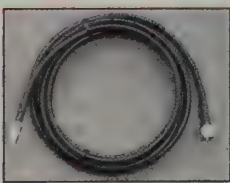


### C101

S0-239 base, 6.5' RG316 Teflon coax & PL-259. Ideal cable assembly for trunk mount/remote head installations.

### C101NMO

Same as C101 with NMO base. For Diamond's K-Series mounts only.



### C110

Extension cable for C101. 10' RG8X coax w/mini UHF connectors. Use C110 to extend cable to 16.5' for most front radio installations.

### C110BNC

10' assembly similar to above, uses RG316 Teflon coax terminating in BNC-male.



### C211

S0-239 base, 16.5' cable assembly & PL-259. Combination of C101 & C110.

### C213

Same as C101 with 13.5' cable assembly.

### C213NMO

Same as C101NMO with 13.5' cable assembly.

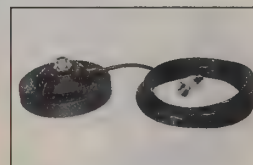
## K400-3/8 C Special Trunk Mount for 3/8 x 24 Thread Antennas

Ideal mount for Outbacker Perth, OB Jr., and other medium weight antennas.

Note: Use C110, 10ft extension for front radio installation

**Adjustment:** 2 axis  
**Power:** 350 watts RMS  
500 w P.E.P.  
**Cable** 6 1/2' RG316 Teflon coax w/PL-259

Spring recommended for stiff/heavy antennas



## SPM35

### Magnet Mount Base

Heavy duty 2.2 lb./4" magnet mount rated 25-500 MHz. Cable: 13' coax and PL-259. Recommended for antennas under 45".

## SPM-NMO

### Magnet Mount Base

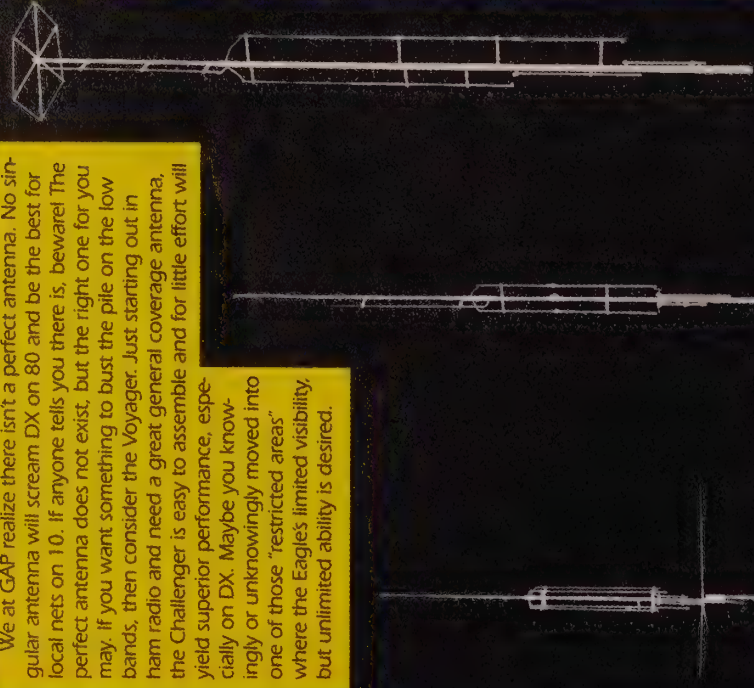
Similar to the SPM35, but has NMO mount.

[www.rfparts.com/diamond](http://www.rfparts.com/diamond)



# GAP: THE PERFECT ANTENNA

We at GAP realize there isn't a perfect antenna. No singular antenna will scream DX on 80 and be the best for local nets on 10. If anyone tells you there is, beware! The perfect antenna does not exist, but the right one for you may, if you want something to bust the pile on the low bands, then consider the Voyager. Just starting out in ham radio and need a great general coverage antenna, the Challenger is easy to assemble and for little effort will yield superior performance, especially on DX. Maybe you knowingly or unknowingly moved into one of those "restricted areas" where the Eagle's limited visibility, but unlimited ability is desired.



Eagle DX

Challenger DX

Voyager DX

This chart helps you select the right GAP antenna. When comparing GAPs, bandwidth is not a concern. With few exceptions, a GAP yields continuous coverage under 2:1 for the ENTIRE BAND.

All antennas utilize a GAP elevated asymmetric feed. A major benefit is the virtual elimination of the earth loss, so more RF radiates into the air instead of the ground. This feed is why a GAP requires **NO RADIALS**. Just as elevating a GAP offers no significant improvement to its performance, adding radials won't either, making set up a breeze.

A GAP antenna has **no traps, coils or transformers**. This is important. The greatest sources of failure in multiband antennas are these devices. Perhaps you heard someone discuss a trap that had melted, arced or became full of water. Improvements to these inherent problems are the focus of the antenna manufacturer, while the basic design of the antenna remains unchanged. **GAP improved the trap by eliminating it!** Removing these devices means they don't have to be tuned and, more importantly, won't be detuned by the first ice or rain. The absence of these devices improves antenna reliability, stability and increases bandwidth.

Another major advantage to a GAP antenna is its NO tune feature. Screws are simply inserted into predrilled holes with a supplied nutdriver.

The secret is out and people in the know say:

**CO-**"The GAP consistently outperformed base-fed antennas...and was quieter."

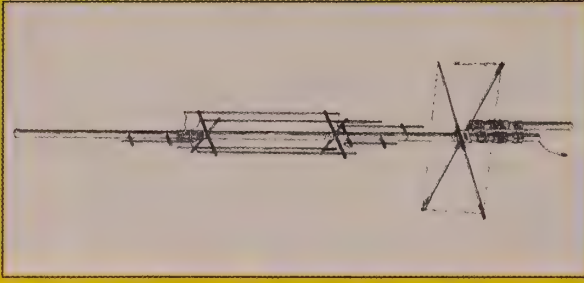
**73-**"This is a real DX antenna, much quieter than other verticals."

**RF-**"To say this antenna is effective would be a real understatement. Switching back and forth on 40m between another multiband HF vertical and the GAP, there was no comparison. Signals were always stronger on the GAP, sometimes by 5 units, not just DBs."

**Worldradio** - "These guys have solved the problem associated with verticals. That is, an awful lot of RF is wallowing around and dropping into the dirt instead of going outward bound. A half-wave vertical does need radials if it is end fed (at the bottom). But the same half-wave vertical does not (as much, hardly at all) if it is fed in the center."

**IEEE** - "Near field and power density analyses show another advantage of this antenna (asymmetric vertical dipole): it decreases the power density close to the ground, and so avoids power dissipation in the soil below it. The input impedance is very stable and almost independent of ground conductivity. This antenna can operate with high radiation efficiency in the MF AM standard broadcast band, without the classical buried ground plane, so as to yield easier installation and maintenance."

Latest Release: **TITAN DX**



This all purpose antenna is designed to operate 10m-80m, WARC bands included. It sits on a 1-1/4" pipe and can be mounted close to the ground or up on a roof. Its bandwidth and no tune feature make it an ideal antenna for the limited space environment as well as a terrific addition to the antenna farm.

# GAP

**ANTENNA  
PRODUCTS, INC.**  
99 N. Willow Street  
Fellsme, FL 32948

tel: (561)-571-9922  
web: gapantenna.com

TO ORDER, CALL AES...

## 1-800-558-0411

MODEL	BANDS OF OPERATION										HT	WT	MOUNT	COUNTER-POISE	COST
	2m	6m	10m	12m	15m	17m	20m	30m	40m	80m	160m				
Challenger DX	■	■	■	■	■	■	■	■	■	■		21 lbs	Drop In Ground Mount	3 Wires @ 25'	
Eagle DX			■	■	■	■	■		■			19 lbs	1-1/4" pipe	80" Rigid	
Titan DX			■	■	■	■	■	■	■	■		25 lbs	1-1/4" pipe	80" Rigid	
Voyager DX							■		■	■	■	39 lbs	Hinged Base	3 Wires @ 57'	

See Price List for GAP Quick-Tilt Mounts, Counterpoise and Guy Kit Prices





## VHF and UHF Fixed Station Vertical Antennas

### Model G6-270R Dual-band Base Antenna for 2 Meter and 440 MHz.

Created from the same design as the G7 and G6 series. Rugged and Solid fiberglass construction. Optimum Gain and Wide Bandwidth. Consists of 5/8" over 5/8" on 2M and 4 x 5/8" on 440 MHz.

- Length: 7ft. 6 in.
- Weight: 5.3 lbs.
- Wind Survival: 100 mph.
- Mounting: 1-1/4" - 1-1/2" mast
- Max Power: 100 watts
- Gain: 6dBd VHF & UHF
- Bandwidth: 1.5:1 SWR  
2 MHz.- 2 Meters  
10 MHz.- 440 MHz.
- Feed: Shunt, DC ground
- Connector: N female



### Model G6-440 Omnidirectional Fixed Station

Each is pre-tuned at the factory for easy installation. Enclosed in a lightweight tapered fiberglass radome for low wind resistance. Compact size allows shipment via U.P.S. or Parcel Post.

#### ELECTRICAL

- Maximum power input: 250 watts
- Gain: 6 dB
- Bandwidth: 8 MHz. under 1.5:1 SWR
- Impedance: 50 ohm nominal
- Lightning protection: direct ground
- Termination: Type N female

#### MECHANICAL

- Length: 87"
- Weight: 5 lbs.
- Wind survival: 125 mph.
- Mounting: up to 2" mast



### G6-144B Two Meter Antenna Omnidirectional Fixed Station

6dB GAIN - compared to 1/2 wave dipole.

Get the tremendous advantage of 6 dB gain transmitting, 6 dB gain receiving. Whether your application is for individual fixed station or repeater operation the Hustler G6-144B has superior mechanical and electrical design. Optimum gain is achieved with two 5/8 wave-length radiators correctly phased in collinear configuration. Stated gain figure is conservative and maximum signal radiation is at an extremely low angle.

#### ELECTRICAL

- 6 dB gain over 1/2-wave dipole
- Omnidirectional radiation pattern
- Maximum radiation - extremely low angle
- 50 ohm feed impedance
- Field adjustable: 140-150 MHz.
- SWR at resonance: 1.2:1 at antenna
- Bandwidth: 4 MHz. under 2:1 VSWR
- Shunt-fed with D.C. grounding

#### MECHANICAL

- Vertical element: 117" long, 1-1/8" telescopic to 3/8"
- Constructed of high strength aluminum
- Connector: SO-239
- Wind load: 26 lbs. @ 100 mph.
- Completely self-supporting
- Mounting: Vertical support up to 1-3/4"
- Shipping wt: 6.8 lbs.



### G7-144 Two Meter Antenna Omnidirectional Fixed Station

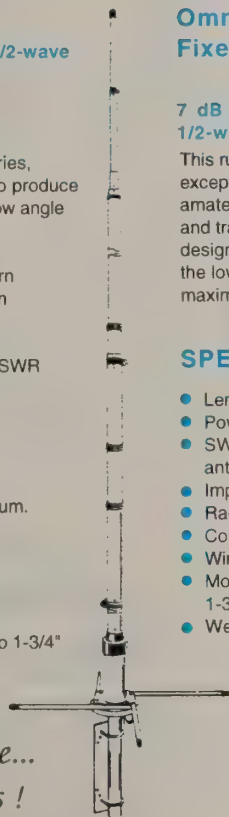
7 dB GAIN - compared to 1/2-wave dipole.

#### ELECTRICAL

- Radiator: Collinear shunt-fed. Triple 5/8-wave elements in series, separated by 2 phasing coils to produce maximum gain and extremely low angle of radiation.
- 7 dB gain over 1/2-wave dipole
- Omnidirectional radiation pattern
- Extremely low angle of radiation
- Tuning range: 144-148 MHz.
- VSWR: 1.2:1 at resonance
- Bandwidth: 4 MHz. under 2:1 VSWR
- Power: 600 watts
- 50 ohm feed impedance
- Shunt fed with DC grounding

#### MECHANICAL

- High strength fiberglass and alum.
- Completely self-supporting
- Length: 184"
- Radials: (4) 20-1/4" x 3/8" O.D.
- Connector: N-type
- Wind load: 26 lbs. @ 100mph.
- Mounting: Vertical support up to 1-3/4"
- Weight: 10 lbs.



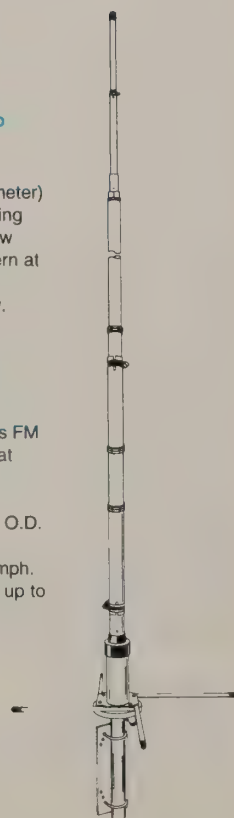
### G7-220 Omnidirectional Fixed Station

7 dB GAIN - compared to 1/2-wave dipole.

This rugged antenna means exceptional 220 MHz (1-1/4 meter) amateur performance, receiving and transmitting. A unique new design keeps the signal pattern at the lowest possible angle of maximum radiation efficiency.

#### SPECIFICATIONS

- Length: 122" long
- Power capability: 600 watts FM
- SWR at resonance: 1.2:1 at antenna
- Impedance: 50 ohms
- Radials: (4) 14-3/4 x 3/16" O.D.
- Connector: Type N
- Wind load: 26 lbs. @ 100 mph.
- Mounting: vertical support up to 1-3/4" O.D.
- Weight: 7 lbs.



*Reliability & Performance...  
Beyond your Expectations !*





## VHF and UHF Mobile Antennas

### Collinear

#### Model CGT-220

5.2 dB Gain 5/8" Over 1/4" Collinear Trunk-Lip Mount Antenna

- 1.1:1 SWR (typical) at resonance • 4 MHz. bandwidth under 1.5:1 SWR • Power rating: 200 watts FM • Height: 4' 9" including mount
- Spin knob to remove antenna
- 17' of low loss coax with connector

#### Model CG-220

Has identical electrical characteristics as CGT-220 but with 3/8" x 24 threaded base

#### Model CGT-144

5.2 dB Gain, 5/8" Over 1/4" Collinear Trunk-Lip Mount Antenna

- 6 MHz bandwidth • 1.5:1 SWR • Power rating: 200 watts FM • Length: 7' 1" including mount • 180° swivel ball for vertical positioning • 17' coax with connector • No drilling required

#### Model CG-144

Same as CGT-144 but has 3/8" x 24 threaded base

### Stainless Steel Mounts

- Exceptional performance and quality
- 180° adjustable reinforced stainless steel ball
- Professional quality Cyclocap bases for greatest mechanical stability
- Exclusive "C" backup plate allows external installation
- Supplied with all mounting hardware and cork pad
- Applicable with all Hustler and other 3/8" x 24 thread

SSM-1 Professional Ball Mount and Spring

SSM-2 Ball Mount

SSM-3 Stainless Steel Spring with Coupling Stud

### Quick Disconnect

#### QD-2 100% Stainless Steel

Remove antenna from mount in seconds with push and twist release. Every part including the compression spring is manufactured from the best available 100% stainless steel. Special design of enclosed compression and lock assembly assures freedom against ice and dirt jam up. Accommodates small, medium and large size mobile antennas. Equipped with 3/8" x 24 threads, female one end and male on the other.



### Professional Series Heavy Chrome

#### Model C-32

Hustler professional ball mount. Furnished complete with rubber pad, steel backup plate, all mounting hardware, and hex wrench.



#### Model C-29

Stainless steel, corrosion resistant and electropolished spring complete with 3/8" x 24 coupling stud.

#### Model C-30

Chrome-plated steel spring complete with 3/8" x 24 coupling stud.

### RX Series

- 3.4 dB Gain; 5/8" , 100 watt rating
- 15 feet of coax with PL-259 connector
- Magnetic mount holds to 75 mph.

Model RX-2

Model RX-220

Model RX-440



### FX Series

- 3.4 dB gain; 5/8" , 200 watt rating
- 15 feet of coax with PL-259 connector
- Magnetic mount holds to 100 mph.

Model FX-2

2 meter, black and chrome

Model FX-220

Model FX-2B

2 meter, all black

Model FX-220B

220 MHz. all black



## Unitv Gain

#### Model THF

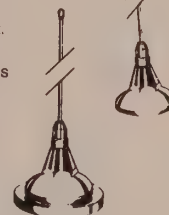
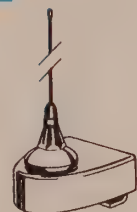
VHF/UHF Trunk-Lip Mount Antenna

#### Model UHT-1

VHF/UHF Roof/Deck Mount Antenna

#### Model UGM

VHF/UHF Magnetic Mount Antenna  
Extend range of handheld or portable radios. Trimmable 17-7 PH stainless steel radiator is cut to 1/4 wavelength for low SWR and unity gain from 140 to 500 MHz. Trim chart included. Highly efficient mylar-protected magnetic mount attaches conveniently to magnetic compatible surfaces. No drilling! Supplied ready for operation with 7' of mini-coax with BNC connector.



### Resonator Spring RSS-2

Finest quality stainless steel spring for use between resonator and Hustler antenna mast. This 3/4" x 3 x 1/2" spring absorbs shock when antenna strikes overhanging obstructions. Supplied ready for easy installation with 3/8" x 24 threads, female on one end, male on the other.



### MBM "Super" Magnet

- 95 lb. pull strength
- Powerful 5 inch dia. magnet
- 16 feet RG 58 coax with PL-259 connector
- 3/8" x 24 female threads
- Recommended for antennas up to 48" in length

### Model

#### BBLT-144A

3.4 dB Gain Trunk-Lip Mount Antenna

- Adjustable 143-149 MHz.
- SWR: 1.1:1 at resonance
- Power rating: 200 watts FM
- Shunt-fed • Reduced static
- Length: 4'4" inc. mt. • Spring and 180° swivel ball for vertical positioning • 17' coax with connector • No drilling required

#### BBL-144A

3.4 dB Gain Roof Mount Antenna

Same as BBLT-144A but mounts in 3/4" hole on a flat surface. 17' coax with connectors.



### Model

#### SF-2

Low Cost 3.4 dB Gain 2 meter 5/8" for 3/8" x 24 thread mounts

- 1.2:1 SWR at resonance
- Power rating: 100 watts FM
- Tapered stainless radiator
- Length: 4'

### Model

#### SF-220

Low Cost 3.4 dB Gain 220 MHz 5/8" for 3/8" x 24 thread mounts



### Model

#### MKR-2 Radial Kit

Contains three decoupling radials and mount to convert series-fed mobile VHF antennas to fixed operation. Performance is comparable to many regular base antennas. Suitable for permanent installations or portable use. Heavy-duty zinc plated mast bracket and hardware. Accepts antennas with standard 3/8" x 24 threaded base.



### Bumper Mount

#### BM-1

Design is rugged for supporting Hustler antenna with Standard or Super resonators. Heavy stainless steel strap, stronger than chain, fits most bumpers inconspicuously. Assembly is easily installed and held rigid by "J" bolts at the top and bumper strap clamp at bottom.

Mount includes 180° adjustable swivel ball for vertical positioning of antenna. Hardware is zinc plated for superior resistance against corrosion.



### Multi-band Adapter VP-1

Automatic bandswitching using any three Hustler H.F. mobile resonators. Adapts with any Hustler H.F. mast (MO-1, MO-2, MO-3, MO-4) for tri-band operation easily and quickly.







# Fixed Station Multi-Band HF Vertical Antennas

- Broadbanded - low VSWR at band edges
- Power capability - full legal limit on SSB or CW
- Solid one-inch fiberglass trap forms for optimum electrical and mechanical stability
- Heavy wall, high strength aluminum tubing, heavy duty aluminum mounting bracket and low loss, high strength insulators
- Stainless steel clamps and hardware
- Easy assembly and tuning
- Single line feed with any length of 50 ohm coax
- Use as ground mount with or without radials, or elevated mount with radials

## Model 6-BTV

- Bands** 10-15-20-30-40 & 75 or 80 meters
- Length/weight** 24'/16.5 lbs.
- Mounting** Vertical support up to 1-3/4" O.D.
- Wind load** 29 lbs. @ 70 mph.
- Power capability** Full legal limit SSB/CW
- VSWR at resonance** 1.15 to 1 or better
- Bandwidth** VSWR 2:1 or better at band edges on 10-40 meters (100 KHz. on 75 or 80 meters)

## Model 5-BTV

- Bands** 10-15-20-40 & 75 or 80 meters
- Length/weight** 25'1"/17 lbs.
- Mounting** Vertical support up to 1-3/4" O.D.
- Wind load** 29 lbs. @ 70 mph.
- Power capability** Full legal limit SSB/CW
- VSWR at resonance** 1.15 to 1 or better
- Bandwidth** VSWR 2:1 or better at band edges on 10-40 meters (100 KHz. on 75 or 80 Meters)

## Model 4-BTV

- Bands** 10-15-20-40 meters
- Length/weight** 21'5"/15 lbs.
- Mounting** Vertical support up to 1-3/4" O.D.
- Power capability** Full legal limit SSB/CW
- VSWR at resonance** 1.15 to 1 or better
- Bandwidth** VSWR 1.6:1 at band edges

## 30 Meter Add-on Kit for 4-BTV and 5-BTV

### Model 30-MTK

- Full 30 meter band coverage
- Will not affect normal operation
- Easy installation
- All hardware included
- Weight: 5 lbs.



## Hustler Resonators

### Standard Resonators

Power rating - 400 watts SSB

Part	Description	Approx. Bandwidth 2:1 SWR or Better
RM-10	10 METER	150-250 KHz.
RM-11	11 METER	150-250 KHz.
RM-12	12 METER	90-120 KHz.
RM-15	15 METER	100-150 KHz.
RM-17	17 METER	150 KHz.
RM-20	20 METER	80-100 KHz.
RM-30	30 METER	50-60 KHz.
RM-40	40 METER	40-50 KHz.
RM-75	75 METER	25-30 KHz.
RM-80	80 METER	25-30 KHz.

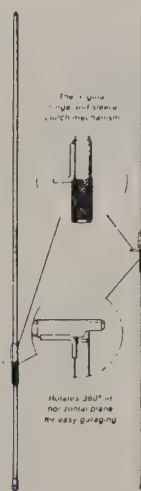
### Super Resonators

Power rating - full legal limit. Super Resonators also offer wider bandwidth, especially on 40, 75 and 80 meters.

Part	Description	Approx. Bandwidth 2:1 SWR or Better
RM-10-S	10 METER	250-400 KHz.
RM-11-S	11 METER	250-400 KHz.
RM-15-S	15 METER	150-200 KHz.
RM-20-S	20 METER	100-150 KHz.
RM-40-S	40 METER	50-80 KHz.
RM-75-S	75 METER	50-60 KHz.
RM-80-S	80 METER	50-60 KHz.



## Mobile HF Antennas Hustler Masts



**MO-1** Mobile mast, 54" high, for deck or fender mounting - folds over 15" above base.

**MO-2** Mobile mast, 54" high, for bumper mounting - folds over 27" above base.

**MO-3** Mobile mast, 54" high, solid - does not fold over.

### MO-4 HF Mobile Mast

- For use with Hustler HF resonators
- Only 22" long
- Suitable for trunk or deck mounting
- Includes 3 new tip rods



MO-4

*Reliability & Performance...  
Beyond Your Expectations!*



## Dual Band Series

Larsen dual band antennas provide excellent performance for simultaneous use of VHF and UHF amateur frequencies. Each Larsen dual band antenna is factory preset to guarantee optimum performance with no tuning required.

### NMO-2/70-SH ..... \$35.95

Freq: 144-148/440-450 MHz  
Gain: Unity  
Power: 100 Watts  
Type: VHF: Center Loaded 1/4  
UHF: Center Loaded 3/4  
Base: NMOUHFBASE w/spring  
Height: 17"  
Whip: WNMO2/70SH

Lower profile amateur 2m/70cm dual band antenna with spring for NMO mounts.

### NMO-2/70B (black) ..... \$58.95

Freq: 144-148/440-450 MHz  
Gain: 2.4/4dB  
Power: 100 Watts  
Type: VHF: 5/8 Wave  
UHF: Collinear  
Base: NMO2/70BCO  
Height: 33.5"  
Whip: W2/70B

Amateur 2m/70cm dual band antenna for NMO mounts. Available in chrome (below).

### NMO-2/70C (chrome) ..... \$53.95

Freq: 144-148/440-450 MHz  
Gain: Unity  
Power: 100 Watts  
Type: VHF: 5/8 Wave  
UHF: Collinear  
Base: NMO2/70BCO  
Height: 36.75"  
Whip: W2/70

Amateur 2m/70cm dual band antenna for NMO mounts. Available in black (above).

### MM-2/70 ..... \$44.95

Freq: 144-148/440-450 MHz  
Gain: Unity  
Power: 100 Watts  
Type: VHF: Center Loaded 1/4  
UHF: Center Loaded 3/4  
Base: 3' Round Mag Mount  
Height: 17"  
Whip: WNMO2/70B

Complete 2m/70cm magnetic mounting antenna with 12' of RG58A/U coax.

### KD4-2/70 ..... \$29.95

Freq: 144-148/442-448 MHz  
Gain: Unity  
Power: 25 Watts  
Type: VHF: Loaded 1/4 Wave  
UHF: 1/4 Wave  
Conn: BNC  
Height: 8"

Impedance matching transformer provides high Q and deeper resonance.

### NMOQ-2/70-B (black) ..... \$32.95

Freq: 144-148/440-450 MHz  
Gain: Unity  
Power: 100 Watts  
Type: VHF: Center Loaded 1/4  
UHF: Center Loaded 3/4  
Base: NMOUHFBASE  
Height: 18"  
Whip: WNMO2/70B

## Kulglass Series

Larsen's Kulglass™ (KG) series uses a patented low impedance design and advanced materials to produce the world's best on-glass antenna. The KG uses advanced resin polymer plastic to completely enclose the circuit board or loading coil for mechanical durability and weather resistance. 3M's best adhesive tape, plus Larsen's unique bonding enhancer ensure the best possible grip to the glass.

### KG-2/70-CX-PL ..... \$99.95

Freq: 144-148/442-448 MHz  
Gain: 2.4/4.5dB\*  
Power: 50 Watts  
Type: VHF: 1/2 Wave  
UHF: Collinear

Base: KG2/700/S  
Height: 32.5"

\*Ground plane required for gain

Glass mount dual band antenna for 2m/70cm amateur radio frequencies.

### KG-144-UD-PL ..... \$73.95

Freq: 144-160 MHz  
Gain: 2.4dB  
Power: 100 Watts  
Type: 1/2 Wave  
Base: KG1440/S  
Conn: PL-259  
Height: 48"  
Whip: WKG144

Complete KG glass mount antenna.

### KG-220-UD-PL ..... \$74.95

Freq: 220-225 MHz  
Gain: 2.4dB  
Power: 100 Watts  
Type: 1/2 Wave  
Base: KG2200/S  
Conn: PL-259  
Height: 26.5"  
Whip: WKG220

Complete KG glass mount antenna.

### KG-440-UD-PL ..... \$61.95

Freq: 440-460 MHz  
Gain: 2.4dB  
Power: 100 Watts  
Type: 1/2 Wave  
Base: KG4400/S  
Conn: PL-259  
Height: 15"  
Whip: WKG440

Complete KG UHF glass mount antenna with coax and connector.

## Kulduckie Portable Series

Superior transmit range and tough mechanical durability are the hallmark of Larsen portables. All center cores are made of brass or copper plated steel to maximize RF emission. Fully soldered connections and silver-plated components improve electrical efficiency. Double spring BNC's also reduce wear on the mount. Other mounting styles available.

### KD4-146 ..... \$18.95

Freq: 144-148 MHz  
Gain: Unity  
Power: 25 Watts  
Type: 1/4 Wave Helical  
Conn: BNC  
Height: 8"

### KD4-146-HQ (2m) ..... \$23.95

Freq: 144-148 MHz  
Gain: Unity  
Power: 25 Watts  
Type: 1/4 Wave Helical  
Conn: BNC  
Height: 8"

### KD-14-2M-HW ..... \$35.95

Freq: 144-148 MHz  
Gain: Unity  
Power: 25 Watts  
Type: 1/2 Wave Telescoping  
Conn: BNC  
Height: 8.5 to 42"  
Whip: WKD142MHW

## NMO Mobile Antennas

Larsen's own version of the standard 3/4" Motorola TAD/TAE type mount uses advanced design, materials and construction to provide a premium mount. For demanding outdoor applications, the chemical resistant NMO series is housed in a resin polymer plastic shell which is completely molded around the nickel plated brass whip stud to eliminate moisture damage. Our superseal gasket also greatly reduces water intrusion under the base.

### NMO-27C (chrome) ..... \$33.95

Freq: 27-31 MHz  
Gain: Unity  
Power: 200 Watts  
Type: Loaded 1/4 Wave  
Base: NMO27BCO  
Height: 53"  
Whip: W490

### NMOQ-SPEC ..... \$11.95

Freq: 136-512 MHz  
Gain: Unity  
Power: 200 Watts  
Type: 1/4 Wave  
Height: 21"



# Hear The Difference

**NMO-150C (chrome)** ..... \$30.95  
**NMO-150B (black)** ..... \$33.95  
 Freq: 144-174 MHz  
 Gain: 3dBd  
 Power: 200 Watts  
 Type: 5/8 Wave  
 Base: NMO150BCO  
 Height: 51.75"  
 Whip: W490

**NMO-220C (chrome)** ..... \$30.95  
**NMO-220B (black)** ..... \$36.95  
 Freq: 220-225 MHz  
 Gain: Unity  
 Power: 200 Watts  
 Type: 5/8 Wave  
 Base: NMO220BCO  
 Height: 34.5"  
 Whip: W400

**NMO-440C (chrome)** ..... \$29.95  
**NMO-440B (black)** ..... \$35.95  
 Freq: 440-460 MHz  
 Gain: 4.5dBd  
 Power: 200 Watts  
 Type: 5/8 over 1/2 Wave  
 Base: NMOUHFBASEB  
 Height: 33"  
 Whip: W154

## Base Station Antennas

Larsen manufactures a variety of small base station for directional and omni-directional applications. Each base station antenna is designed with premium materials to withstand the most demanding weather conditions. All base station antennas come with mounting hardware to attach to a pole up to 2" in diameter.

**BSA-K** ..... \$49.95  
 Freq: 144-512 MHz  
 VSWR: 1.5:1 or less  
 Power: 200 Watts  
 Conn: UHF Female  
 Whip: 51-3/4"

Complete base station kit for designing a base station unit from 144-512 MHz. Comes with mounting hardware.

**FB1-136** ..... **CLOSEOUT \$99.95**  
 Freq: 136-230 MHz  
 Gain: 3.6dB  
 Power: 200 Watts  
 Type: 5/8 over 1/2 Wave  
 Height: 96"  
 Height: 33"  
 Wind Load: 100 mph

## Mounts

Larsen has a full line of permanent and temporary mounts to solve nearly every installation problem. Each mount is manufactured of the highest quality materials, including premium coax.

**NMO-K** ..... \$13.95  
 Motorola style roof mount

Size: 3/4"  
 Coax: 17' RG-58A/U  
 Conn: PL-259

**NMO-MM** ..... \$30.95  
 Motorola style magnetic mount

Size: 3-1/2" x 3"  
 Rectangle  
 Coax: 12' RG-58A/U  
 Conn: 58FCP  
 Pull Strength: 90 lbs.

**NMO-TLP** ..... \$27.95  
 Motorola style trunk gutter bracket, black

Size: 1-3/4" x 1-3/4"  
 Coax: 17' RG-58A/U  
 Conn: PL-259

**PO-K** ..... \$26.95  
 SO-239 female type roof mount

Size: 3/4" hole  
 Coax: 17' RG-58A/U  
 Conn: PL-259

**PO-MM** ..... \$33.95  
 SO-239 female type magnetic mount

Size: 3-1/2" x 3"  
 Rectangle  
 Coax: 17' RG-58A/U  
 Conn: 58FCP  
 Pull Strength: 90 lbs.

**TMB-34** ..... \$4.95

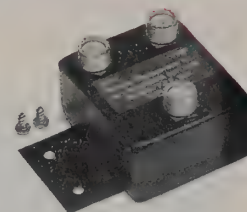
**TMB-34B (black)** \$7.95  
 Chrome trunk mounting bracket for NMO antenna.

Size: 1-5/8" x 1-5/8"  
 Mount: NMO

## Parts and Accessories

**AD2/70** ..... **CLOSEOUT \$79.95**  
 Type: SO-239 all ports

Dual Band antenna coupler/duplexer.



**W-490** ..... \$9.95

Chrome .100 tapered replacement whip for 144 MHz. (49")

**W-490B** ..... \$12.95

Black .100 tapered replacement whip for 144 MHz. (49")

**W-2/70B** ..... \$24.95

Black .100 dia. replacement whip for NMO 2/70B (approx. 31")



### Larsen Antenna Technologies

3611 NE 112th Avenue  
 Vancouver, WA 98682  
 360 944-7551, Fax: 360 944-7556  
 Email: larsen@larsenantennas.com

### Larsen Antenna Technologies - Canadian, Ltd.

5049 Still Creek Avenue  
 Burnaby, BC V5C 5V1  
 604 299-8517, Fax: 604 299-4191

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[www.larsenet.com](http://www.larsenet.com)





.... a blend of technical expertise, common sense, and real world moxy with over twenty-five years of experience designing and building antennas that satisfy the most demanding operator. The antenna of choice for high performance VHF/UHF work.

Using the latest computer optimization programs and their decades of VHF antenna design experience, M² engineers maximize the performance of every antenna they make. Gain, beamwidth, F/B, and bandwidth are tailored, model by model to enhance your application. They're built for long-term service with no degradation of performance or reliability. Structurally strong – all are rated for 100MPH wind survival. Most use a unique T-match system, with balun, and feed connectors O-ring sealed in a CNC machined block. Internal connections are encapsulated in a high-dielectric space-age silicone gel. Type-N feed connectors feature a beryllium copper gold-plated center pin. Power handling is rated at 1500 watts. All models shown are UPS shippable.

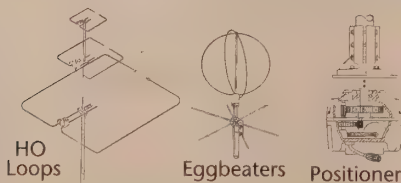


6 Meter Antennas			
Model	6M-5	6M-7JHV	6M-HO-LOOP
FREQ RANGE	50-50.5 MHz	50-50.4 MHz	50-50.3 MHz
ELEMENTS	5	7	1 Loop
BM LGTH/DIA.	15.8' / 1.5"	30.6' / 1.5"	29.5" Sq.
GAIN	9.4 dBd	10.9 dBd	4.4 dBd
F/B	12dB	25 dB	N/A
BEAMWIDTH	E 52°/H 60°	E 40°/H 42°	Omni, Horiz.
VSWR	1.2:1 Typ.	1.2:1 Typ.	1.2:1 Typ
WIND AREA	2 Sq ft.	5 Sq ft..	0.1 Sq.ft
WIND SURV	100 MPH	85 MPH	100 MPH
WEIGHT	9 lbs	17 lbs	2 lbs
PRICE	<b>\$199<sup>95</sup></b>	<b>\$249<sup>95</sup></b>	<b>\$89<sup>95</sup></b>

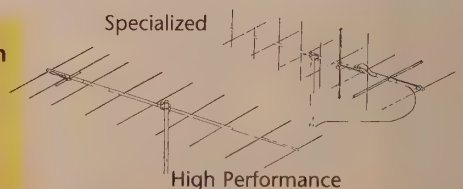
Microwave		
Model	23CM-22EZ	23CM-35
Freq Range	1250-1300 MHz	1250-1300 MHz
Bm Length	5' 2"	10' (13 WL)
Elements	22	35
Gain	16.0 dBd	18.4 dBd
F/B	26 dB	28 dB
Beamwidth	E 24°	E 17°/H 18°
VSWR	1.1:1	1.2:1 typ.
Wind Area	0.3 sq. ft.	0.6 sq. ft
Wind Surv	100 mph	100 mph
Weight	2 lbs	4 lbs
Price	<b>\$89<sup>95</sup></b>	<b>\$149<sup>95</sup></b>

2 Meter Antennas										
Model	2M-4	2M-7	2M9FM/2M9SSB	2M-12	2M-5WL	2M-18XXX	2M-CP14	2M-CP22	2M-HO-LOOP	EB-144
Freq Range	144-148 MHz	144-148 MHz	FM or SSB	144-148 MHz	144-148 MHz	144-146 MHz	143-148 MHz	144-148 MHz	144-144.5 MHz	130-150 MHz
Elements	4	7	9	12	17	18	7H/7V	11H/11V	1 Loop	2 (loops)
Bm Lgth/Dia.	4' / 1"	8.8' / 1"	14.5' / 1" - ¾"	19.5' / 1½" - 1"	33' / 1½" - ¾"	36.3' / 1½" - ¾"	10.5' / 1"	18.5' / 1½" - 1"	11.5" Sq.	NA
Gain	7.5 dBd	10.3 dBd	12.0 dBd	12.8 dBd	14.8 dBd	15.3 dBd	10.3 dBdc	12.5 dBdc @11°	4 dBd	4 dBd
F/B	20 dB	20 dB	24 dB	25dB	22 dB	25 dB	20 dB	25 dB typ.	N/A	NA
B/W (E/H)	54°/74°	46°/54°	35°/40°	32°/36°	26°/29°	25°/29°	52° Circular	40° Circular	Onmi, Horiz.	Omni, Horiz
VSWR	1.5:1 max.	1.3:1 typ.	1.4:1 max.	1.2:1	1.2:1	1.2:1	1.3:1 typ.	1.4:1 max.	1.2:1 Typ.	1.5:1 max
Wind Area	.05 sq. ft.	.74 sq. ft.	1.2 sq. ft	1.5 sq. ft.	2.7 sq. ft.	2.9 sq. ft.	1.1 sq. ft.	2.5 sq. ft.	.025	.07 sq. ft.
Wind Surv	100 mph	100 mph	85 mph	100 mph	100 mph	100 mph	100 mph	100 mph	100 mph	100 mph
Weight	3 lbs	4 lbs	6 lbs	8 lbs	12 lbs	14 lbs	6 lbs	12 lbs	1 LB	1.4 lbs
Price	<b>\$89<sup>95</sup></b>	<b>\$109<sup>95</sup></b>	<b>\$119<sup>95</sup></b>	<b>\$159<sup>95</sup></b>	<b>\$199<sup>95</sup></b>	<b>\$229<sup>95</sup></b>	<b>\$169<sup>95</sup></b>	<b>\$229<sup>95</sup></b>	<b>\$39<sup>95</sup></b>	<b>\$129<sup>95</sup></b>

220MHz & UHF										
Model	222-10EZ	222-5WL	420-50-11	432-9WL	432-13WLA	436-CP30	436-CP42UG	440-18	440-21ATV	EB-432
Freq Range	222-226 MHz	222-226 MHz	420-450 MHz	420-440 MHz	430-434 MHz	430-440 MHz	430-438 MHz	420-453 MHz	1420-440 MHz	144-144.5 MHz
Elements	10	15	11	28	38	15H/15V	21H/21V	18	21	1 Loop
Boom length	9'9"	23'3"	5' (rear mt.)	21' (9WL)	30.75' (13 WL)	9.75' (13 WL)	18'10"	11'4"	14'6"	11.5" Sq.
Gain	12 dB	15.2 dB	11.3 dB	17.3 dB	18.6 dB @ 432	14.5 dBdc	16.8 dBdc	14.5 dBd	15.9 dBd	4 dBd
F/B	23 dB	21 dB	20 dB	24 dB	22 dB	22 dB	25 dB	23 dB	23 dB	N/A
B/W (E/H)	34°/39°	26°/28°	34°/43°	20°/22°	16°/18°	30° Circular	21° Circular	27°/32°	22°/24°	Onmi, Horiz.
VSWR	1.2:1 max.	1.2:1 typ.	1.2:1 typ.	1.2:1 (425-436)	1.2:1 max.	1.4:1	1.5:1 max	1.2:1 typ.	1.2:1 max.	1.2:1 Typ.
Wind Area	.0.9 sq. ft.	1.5 sq. ft.	.575 sq. ft	1.6 sq. ft.	2.5 sq. ft.	1 sq. ft.	2 sq. ft.	0.875 sq. ft.	1.25 sq. ft.	0.25
Wind Surv	100 mph	100 mph	100 mph	100 mph	100 mph	100 mph	100 mph	100 mph	100 mph	100 mph
Weight	4 lbs	9 lbs	4 lbs	8 lbs	10 lbs	5 lbs	7.8 lbs	5 lbs	4.6 lbs	1 LB
Price	\$99 <sup>95</sup>	\$159 <sup>95</sup>	\$89 <sup>95</sup>	\$169 <sup>95</sup>	\$229 <sup>95</sup>	\$229 <sup>95</sup>	\$269 <sup>95</sup>	\$119 <sup>95</sup>	\$139 <sup>95</sup>	\$119 <sup>95</sup>



To view complete specification sheets on individual antennas, antenna positioner/control units; and the latest M² news, check their web site at:  
**[www.m2inc.com](http://www.m2inc.com)**



See the Price Guide for Stacking Kits, Mounts, Antenna Positioner/Controller and the new M² DX-Series HF Beams

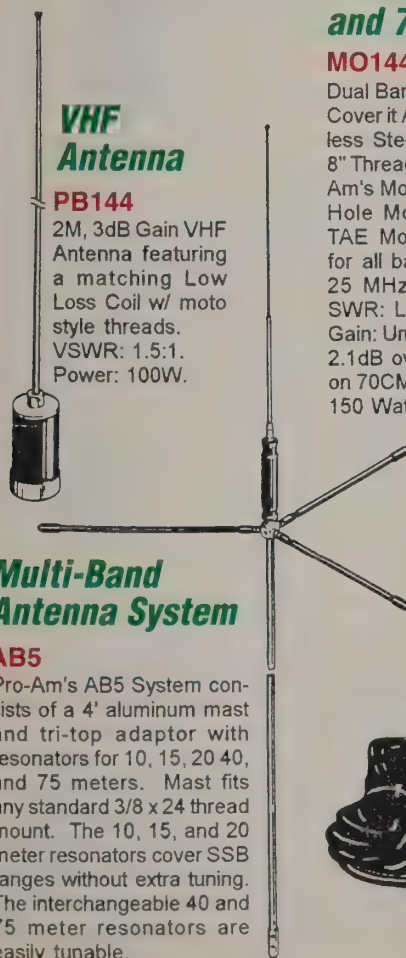


## 160-6 Meters Mobile

### PHF Series Antennas

Pro-Am's Monoband PHF Series consists of a black fiberglass lower section with integral coil and an adjustable (and removable) stainless steel whip (except for PHF160). These time-proven HF antennas are especially designed for maximum efficiency, low SWR, and broad bandwidth. They are power rated at 250 Watts P.E.P. and built to withstand considerable use. Standard 3/8 x 24 threads. Total assembled length on all models: 96". (Exception: PHF6: 58")

Model	Band	Band Width
PHF160	160 Meters	12 KHz
PHF75	75 Meters	36 KHz
PHF40	40 Meters	60 KHz
PHF30	30 Meters	100 KHz
PHF20	20 Meters	150 KHz
PHF17	17 Meters	175 KHz
PHF15	15 Meters	200 KHz
PHF12	12 Meters	300 KHz
PHF10	10 Meters	500 KHz
PHF6	6 Meters	1000 KHz



## VHF Antenna

### PB144

2M, 3dB Gain VHF Antenna featuring a matching Low Loss Coil w/ moto style threads. VSWR: 1.5:1. Power: 100W.

## Thru Glass 2 Meter

### GM-144

2M Thru-The-Glass Antenna Kit featuring a 27-1/2" Copper Plated Whip with Black Finish and 14' of RG58 to a PL-259. Gain: 2.5dB over 1/4 wave. VSWR: 1.5:1 through the band. Max. Power: 50W. Field Tuneable.

*NOTE: Some newer autos have "passivated glass" which does not permit antennas to work properly. Check your manual or dealer.*



## Dual Band Antenna 2 Meter and 70CM

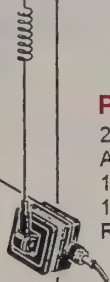
### MO144-440

Dual Band Antenna to Cover it All! 19" Stainless Steel Whip. 1-1/8" Threads Match Pro-Am's Mounts and 3/4" Hole Motorola TAD/TAE Mounts. Great for all band scanners 25 MHz - 1.3 GHz. SWR: Less than 2:1. Gain: Unity on 2m and 2.1dB over 1/4 Wave on 70CM. Power FM: 150 Watts.

## Thru Glass 2 Meter and 70CM

### GM-270

Dual Band Thru-The-Glass Antenna Kit featuring a 26" Copper Plated Whip with Black Finish and 14' of RG58 to a PL-259. Gain: 2.6dB over 1/4 wave at 2m & 4.0dB over 1/4 wave at 70cm. Typ. VSWR: Less Than 2.0:1 through the bands. Maximum Power: 50W. Field Tuneable.



## Hand-Held Antennas

### 144BNC

Electrical 1/4 Wave "Rubber Duck" gets high performance in VHF (144-148 MHz.) 12" in length. BNC connector for quick disconnect.

### 450BNC

Full 1/4 Wave "Rubber Duck" gets high performance in UHF (430-470 MHz.) 6-1/2" in length. BNC connector for quick disconnection.



## Mag Mount Kits

### MM270B

Dual Band MICRO-MAG™ Kit with 9' of RG174 Cable to BNC Connector. 1/4 Wave at 2m and 5/8 Wave at 70cm. Typical VSWR: Less than 1.5:1 through the band. Max. Power: 50 Watts on 2m and 25 Watts on 70CM.



### VA002B

2 Meter Mag Mount Kit. 17-7 ph Stainless Steel Whip, 12' of Cable with PL-259 Connector. Can be cut for 220 or 450 MHz. Available in Chrome or Black Finish. (Please specify "B" after Model Number for Black)

### VA002BBN

Same as VAA002 but with BNC Connector.



### PA270M

2M-3/4M Dual Band Antenna Kit with 2-1/2" magnetic base, 19" whip, and 17' of RG58 to a PL-259.



### PA440M

3/4M Antenna Kit with 2-1/2" magnetic base, 22" whip, and 17' of RG58 to a PL-259.



### PA220M

1-1/4M Antenna Kit with 2-1/2" magnetic base, 30" whip, and 17' of RG58 to a PL-259.



### PA144M

2M-6M Dual Band Antenna Kit with 2-1/2" magnetic base, 49" whip, and 17' of RG58 to a PL-259.



## Multi-Band Antenna System

### AB5

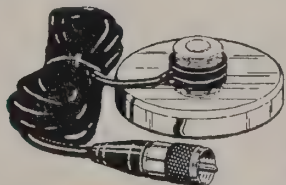
Pro-Am's AB5 System consists of a 4' aluminum mast and tri-top adaptor with resonators for 10, 15, 20 40, and 75 meters. Mast fits any standard 3/8 x 24 thread mount. The 10, 15, and 20 meter resonators cover SSB ranges without extra tuning. The interchangeable 40 and 75 meter resonators are easily tunable.

## Mount and Accessories



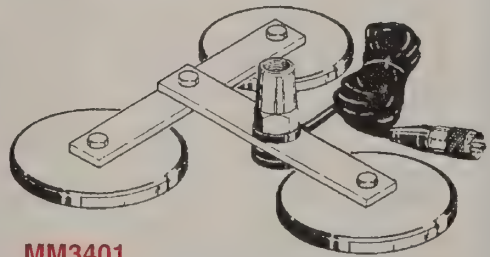
### PAT2

Low Profile Trunk Mount including 17' of RG58 Cable with PL-259 Connector. (Available in Black Finish: specify with a "B" suffix.)



### PAM

3-3/4" Diameter Low Profile Magnet Mount Kit pre-wired with 12' of RG58 Cable to a PL-259 Connector. (Available in Black or Chrome Plated; Add "B" suffix for Black)



### MM3401

Maxi-Magnet Mount Kit features three 5" (401) magnets properly spaced on a heavy duty aluminum frame. The MM3401 is pre-wired to Valor's patented wafer termination with 17' of RG58 coax and PL-259 connector. Accepts standard 3/8" x 24 antennas. Available with Black magnet cups: **MM3401B**



## NEW & REVOLUTIONARY BALUNS and UNUNS

2 KW to 10 KW • 98% Efficient • 1 MHZ to 50 MHZ

Dr. Jerry Sevick, W2FMI, researched, experimented and wound over 1000 Baluns and Unun transformers for use in Amateur Radio and used over 1 mile of wires over a 20 year period. The results of his sensational work are these new powerful, 2 Kw to 10 Kw, 98% efficient, 1 Mhz to 50 Mhz Baluns and Ununs. His work is also featured in over 20 articles and 3 books.

### B A L U N S

		PART NO.	PRICE
50Ω:12.5Ω	Direct Connect Yagi Beam	4:1-HB50	\$49.95
50Ω:50Ω	1/2λ Dipole or Yagi Beam	1:1-HB50	\$49.95
50Ω:75Ω	1/2λ Dipole at 0.22λ above Ground	1.5:1-HB75	\$69.95
50Ω:100Ω	1/2λ Dipole at 0.22λ, 0.33λ & Quad Loop	2:1-HB100	\$69.95
50Ω:200Ω	Folded Dipole, Log Periodic Beam	4:1-HB200	\$49.95
50Ω:200Ω	Off Center Fed Antennas	4:1-HB/U200	\$69.95
50Ω:200Ω	10 Kw Antenna Tuners, G5RV Log Periodic Beam & Ladder Line	4:1-HBHT200	\$69.95
50Ω:300Ω	300Ω Ribbon Folded Dipole	6:1-HB300	\$69.95
50Ω:300Ω	Off Center Fed Antennas	6:1-HB/U300	\$89.95
50Ω:450Ω	Twin Lead (between 9:1 - HB450's)	9:1-HB450	\$89.95
50Ω:600Ω	Rhombic & V-Beam Antenna	12:1-HB600	\$199.95

### U N U N S

PART NO.	IMPEDANCE MATCH	PRICE	PART NO.	IMPEDANCE MATCH	PRICE
2:1-HDU50	50Ω:22Ω & 25Ω	\$49.95	1.78:1-HDU50	50Ω:28Ω & 12.5Ω	\$49.95
2:1-HDU100	100Ω & 112.5Ω:50Ω	\$49.95	1.56:1-HDU50	50Ω:32Ω & 18Ω	\$49.95
1.5:1-HU75	75Ω:50Ω	\$49.95	1.78:1-HMMU50	MULTIMATCH UNUN	\$69.95
4:1-HCU50	50Ω:12.5Ω	\$49.95	BEV-U50 Beverage Ant. Unun		\$69.95
9:1-HU50	50Ω:5.56Ω	\$49.95	50Ω:800Ω, 612Ω, 450Ω		

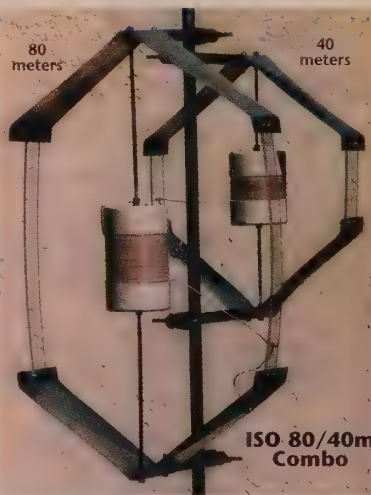


## ISOTRON<sup>®</sup> BILAL COMPANY

See product reviews 73 Magazine: Oct. '84, Sept. '85, Mar. '86, Nov. '94, Apr. '96. CQ magazine: Dec. '88. WR: Mar '91.  
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137 Manchester Dr. Florissant, CO 80816

## Antennas for Very Limited Space - Simple & Effective

- Solve virtually any restricted space problems.
- Easy, Quick, and simple installation.
- Handles up to 1,000 watts PEP.
- Excellent portable operation - emergencies, RV's, field day, motels, Maritime operation.
- Not dependent on grounding for performance.
- Unobtrusive appearance, making a very discreet looking installation.
- Very Stealth.
- Excellent Low Noise reception and transmitting quality performance is not compromised by its compact design.
- Tunes and performs without radials.
- Multi-band operation on one feedline with back to back mounting. Any other combination of three bands may be substituted on special order.
- Durable construction, can be used in extreme weather conditions, will not bend in high winds. No motors or mechanical tuning devices to fail.



### Common Specifications:

Stainless steel fasteners • Tempered aluminum • Cast acrylic & PVC insulators • Zinc plated U-bolts • THHN #14 solid copper coils • Wind rating 85 mph • Coax feed, 50-75Ω • Omni-directional pattern • 1000W PEP rating (300W, CW (AM, FM, RTTY) • Bandwidth is within 2:1 SWR (may vary with environment).

### Individual Specifications:

Model	ISO 160C	ISO 80	ISO 40	ISO 20	ISO 15	ISO 10
Band	160 meters	80 meters	40 meters	20 meters	15 meters	10 meters
Freq.	1.8-2.0MHz	3.5-4.0MHz	7.0-7.3MHz	14-14.350MHz	21-21.450MHz	28-30MHz
hwxwd ("")	9.5" x16x15	32x16x15	22x16x15	21x8x4	21x1½x4	16x1½x4
BW	100 KHz	110KHz	250KHz	350KHz	450KHz	1MHz
Windload	1.697 ft <sup>2</sup>	1.37 ft <sup>2</sup>	1.0 ft. <sup>2</sup>	0.23 ft. <sup>2</sup>	0.23 ft. <sup>2</sup>	0.16 ft. <sup>2</sup>
Weight	7 lbs.	6 lbs.	4 lbs.	2 lbs	2.0 lbs	1.5 lbs
PRICE	\$169 <sup>95</sup>	\$95 <sup>95</sup>	\$85 <sup>95</sup>	\$74 <sup>95</sup>	\$64 <sup>95</sup>	\$64 <sup>95</sup>

### Multiband Models:

**ISO 80/40 COMBO** Covers same as individual specs above (one feed line) 32x16x30", 2.37 ft.<sup>2</sup>, 10 lbs\* ..... **\$168<sup>95</sup>**

**ISO 20/15/10 COMBO** Covers same as individual frequency specs listed above (one feed line)\* ..... **\$187<sup>95</sup>**

**SPECIAL ORDER!** - You can make up your own combination. Substitute 30m for 40m in the 80/40 Combo or 17m for 12m in the 20/15/10 Combo. \*Combos require coaxial "T"s & jumpers (not included).



## HF/VHF/UHF Mobile Antenna for the new radios that operate HF/6M/2M/70cm

**CA-UHV** Designed for 6 & 2M and 70cm basic operation without tuning. Additional coverage for 40, 15 and 10 meters may be added by installing the supplied coils for those bands. Coils for 20 and 17 meters are optional. Choose either one, two, or three coils and add one to the top, and one or two to the side, in any combination. Automatic bandswitching. Each HF element tunes independently without affecting VHF/UHF.

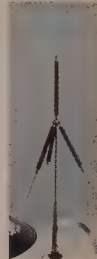
Only 7 ft. 2 inches tall with the 40M coil attached to the top. A unique fold-over hinge pivots approximately 5 inches from the bottom for garaging, entering parking structures, etc.

Installs on any standard SO-239 (PO) type mount; no special brackets are needed. Several duplexers/triplexers are available for all of the multiband radios, including the FT-100, IC-706MKIIG, FT-847, etc. - see the index under duplexers for selection.

**CA-UNV** HF/6M/2M/70cm antenna ..... **\$139<sup>95</sup>**  
**L-14** 20M coil..... **\$36<sup>95</sup>** **L-18** 17M coil..... **\$29<sup>95</sup>**  
**CF-360B** 1.3-90/50-470 MHz duplexer..... **\$69<sup>95</sup>**  
**CF-530** 1.3-90/25-470 MHz duplexer..... **\$69<sup>95</sup>**

### HA-4S HF Mobile Antenna (right)

Automatic bandswitching between (4) HF bands changing coils or moving plugs. Standard coils include 40, 15, 12, 10M. 20M coil optional. Compact and lightweight, only 4 ft. 10 inches tall. Mounts on trunk-lip style bracket. Construction includes gold-plated PL-259 at the base, and a threaded collar that unscrews to expose a convenient hinged base that allows 90° fold-over for garaging, etc..... **\$179<sup>95</sup>**



### CYA-240 Dual Band 2M/70cm Antenna

Single boom design with five UHF elements in front of three VHF elements, only 5 ft. 3 inches long. Separating yagis from each other produces the best radiation pattern. Gain: 7.4 dBd on 144-148MHz; 9.5dBd on 440-450MHz. F/B ratio is 18dB. The included power divider allows single feedline operation. High-grade aluminum and stainless steel hardware. Elements are secured with wing nuts making portable use easy. Horizontal or vertical mounting. Power rating: 300W SSB, 150W FM/CW. Accepts masts 1¼ to 2½", 4 lbs. 7oz... **\$99<sup>95</sup>**



### CA-52HB4 Wide Band 6 Meter Beam

Type.....HB9CV, 4-element  
Frequency.....50MHz band  
Impedance.....50Ω  
VSWR...<1.5:1 (50-54MHz)  
Gain.....10.4 dBi  
Half Power Angle.....<54°  
F/B ratio.....Over 19 dB  
Max Power.....400W SSB  
Boom Length.....10.5 ft.  
Turning Radius.....7.3 ft.  
Connector.....SO-239  
Mast Dia. .... 1.0 to 2.5 in.  
Weight.....4 lbs, 14 oz  
**PRICE \$119<sup>95</sup>**

### GH-50 6 Meter Vertical Antenna

Type..... Omnidirectional  
Frequency..... 50MHz band  
Construction..... One piece white fiberglass with tuning stub on top  
Length.....7 ft., 10 in.  
Impedance..... 50Ω  
VSWR..... 1.5:1 or less  
Bandwidth .1 MHz, tunable  
Gain. 2.5dBi over 1/4-wave  
Maximum Power..20W SSB  
60W FM  
Connector..... SO-239  
Weight.....2 lbs, 10 oz.  
**PRICE \$109<sup>95</sup>**





# SOLARCON ANTENNAS A-99

## 10M Base Antenna with Twin Ring Adjust-A-Match Tuning

The **A-99** is a voltage fed half wave variable mutual transfer inductance tuned antenna for 10 meters.

**It's economical** and easy to use! — the **SOLARCON** sealed base unit is tuned with external inductance rings. Impedance remains constant over the tuning range.

**Simple Tuning!** — raising the tuning rings raises the frequency and lowering the rings lowers the resonant frequency.

**A real beauty!** — rugged three-piece white fiberglass construction with triple plated brass fittings. It's easy to assemble and install.

The optional **GPK-1** Ground Plane Radial Kit makes it perform even better!

### Specifications:

Height .....	17 ft. 8 in.	Radiation Angle.....	<20°
Sections .....	3	Grounding .....	DC Ground
Band .....	10 meters	Mounting .....	1-1/2" mast
Gain .....	3 dBi	Coaxial Cable .....	52Ω
Power Limit .....	2000W	Connector .....	S0-239

**A-99 Price: \$64<sup>95</sup>**

### GPK-1 Groundplane Kit

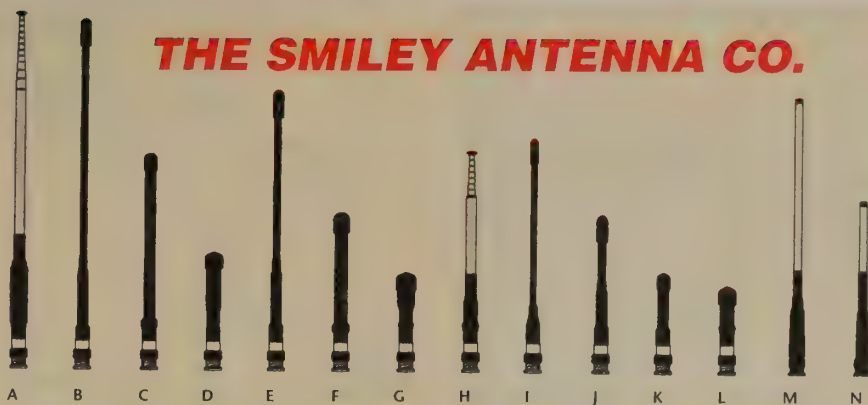
- 30% more power gain and lower angle of radiation for greater range.
- Kit includes 1 collar and 4 fiberglass radials.

**\$39<sup>95</sup>**

## UNADILLA

**W2AU/W2VS** 5-Band Antenna Kit Provides Low SWR on 80 & 40M and resonant performance on 10, 15 & 20M. Includes 40M traps, W2AU 1:1 balun, end insulators, 120' of #14 stranded copper wire & instructions. 110' long, rated 2KW PEP..... **\$85<sup>95</sup>**

## THE SMILEY ANTENNA CO.

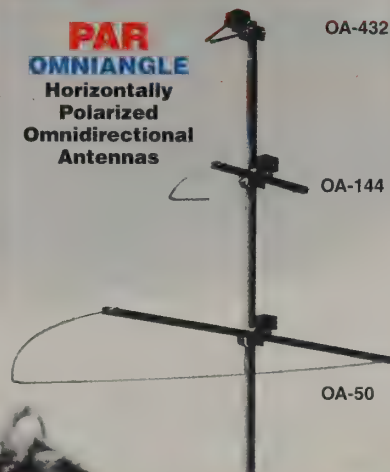


### Hand Tuned Antennas for Hand Held Radios

Each Smiley antenna is individually tuned to resonance at band center under normal operating conditions (no ground plane, no radials). They're manufactured from the finest heat-treated copper plated spring steel coils. Cold rubber compound is used for coil insulation with a neoprene heat-shrink coating applied for strength and endurance. All have BNC connectors.

<b>THIN STICK</b> 1/4-wave telescoping dual band antenna for 144 and 220MHz bands ..... <b>TS \$16<sup>95</sup></b>	<b>5/8 SLIM DUCK COMBO</b> As above, but incl. 220MHz Stubby Duck (G)..... <b>5/8 SLD-220 COMBO \$24<sup>95</sup></b>
<b>SUPER STICK II</b> (A) 2M, 5/8-wave, flexible base loaded telescoping antenna. 6-9db gain fully extended. Usable fully collapsed, or one section 1/4 wave. 54" extended, 10" collapsed..... <b>SS-II \$19<sup>95</sup></b>	<b>REGULAR DUCK</b> (F) 220MHz, tuned RD-220 <b>\$14<sup>95</sup></b>
<b>SUPER STICK II COMBO</b> As above, but incl. a 2M Stubby Duck antenna (D) ..... <b>SS-II/COMBO \$26<sup>95</sup></b>	<b>STUBBY DUCK</b> (G) 220MHz, tuned ....RDS-220 <b>\$14<sup>95</sup></b>
<b>5/8 SLIM DUCK</b> (B) 2M, 5/8-wave, 7db gain, flexible base loaded ant. 12" long ..... <b>5/8 SLD-2 \$17<sup>95</sup></b>	<b>SUPER STICK IV</b> (H) 440MHz 5/8-wave, flexible telescoping ant. 6-9db gain extended; usable collapsed. 18" extended, 5 1/4" collapsed..... <b>SS-IV \$19<sup>95</sup></b>
<b>5/8 SLIM DUCK COMBO</b> As above, includes a 2M meter Stubby Duck (D) ... <b>5/8 SLD-2 COMBO \$24<sup>95</sup></b>	<b>SUPER STICK IV COMBO</b> As above, but includes a 440MHz Stubby Duck (K) ..... <b>SS-IV/COMBO \$26<sup>95</sup></b>
<b>REGULAR DUCK</b> (C) For 2M. Tuned Ducks show a 3db gain over other Rubber Ducks because they are impedance matched for hand-helds ..... <b>RD-2 \$14<sup>95</sup></b>	<b>SLIMLINE</b> (I) 440MHz, 1/4-wv. flex ... <b>SL-440 \$12<sup>95</sup></b>
<b>STUBBY DUCK</b> (D) Tuned, for 2M ..... <b>RDS-2 \$14<sup>95</sup></b>	<b>5/8 SLIM DUCK</b> (J) 440MHz, 7db gain, flexible base loaded antenna. Length: 5" ..... <b>5/8 SLD-440 \$17<sup>95</sup></b>
<b>SUPER STICK III</b> A 220MHz 5/8-wave, flexible base loaded telescoping antenna. 6-9db gain extended; usable collapsed, or a one-section 1/4-wave. 36" extended, 8 1/4" collapsed ..... <b>SS-III \$19<sup>95</sup></b>	<b>5/8 SLIM DUCK COMBO</b> As above, but includes a 440MHz Stubby (K) ... <b>5/8 SLD-440 COMBO \$24<sup>95</sup></b>
<b>SUPER STICK III/COMBO</b> As above but includes a 220MHz Stubby Duck (G) ..... <b>SS-III/COMBO \$26<sup>95</sup></b>	<b>STUBBY DUCK</b> (K) 440MHz, tuned RDS-440 <b>\$14<sup>95</sup></b>
<b>5/8 SLIM DUCK</b> (E) 220MHz, 7db gain, flexible base loaded antenna. 9" long ..... <b>5/8 SLD-220 \$17<sup>95</sup></b>	<b>MINI DUCK</b> (L) 440MHz, tuned . <b>RDMD-440 \$14<sup>95</sup></b>
	<b>FLEX-COIL</b> (M) 2M, 1/2-wave, 7-9 dB gain, flexible base, 35" fully extended..... <b>FLX 1/2 WAV-2M \$25<sup>95</sup></b>
	<b>270A</b> (N) Telescoping 2m/440 gain antenna. 1/4-wave (2m) 5/8-wave (440 MHz) ..... <b>\$19<sup>95</sup></b>
	<b>TAQ</b> 1/4-wave whip antenna, specify for 2M, 220 or 440MHz ..... <b>\$10<sup>95</sup></b>

### PAR OMNIANGLE Horizontally Polarized Omnidirectional Antennas



**OMNIANGLE** models for 10m, 6m, 2m, 220MHZ and 440MHZ (**FIXED** or **MOBILE**). The perfect complement to high-gain directional arrays, allowing all-direction local work and monitoring for DX.

Outperforms Halos, Loops and Turnstiles! It's considerably longer than a halfwave dipole, and coupled with the unique triangle shape, yields a horizontally polarized antenna whose pattern is within 0.8dB of being a perfect circle, and exhibiting wide bandwidth.

Rated at 150W, it's built-in matchbox and current balun allow feeding with 52Ω coax and easy tuning to the desired frequency with a perfect match. The design virtually eliminates detuning due to moisture.

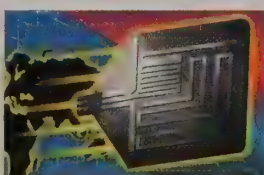
Stack two or four OMNIANGLES for 3 to 6dB omnidirectional gain and lower angle of radiation

<b>OmniAngle Models'</b>	<b>OA-144</b> 138-150MHz.. <b>\$54<sup>95</sup></b>
<b>OA-28</b> 28-30MHz ..... <b>\$74<sup>95</sup></b>	<b>OA-222</b> 222-224MHz.. <b>\$54<sup>95</sup></b>
<b>OA-50</b> 49.5-54MHz ... <b>\$63<sup>95</sup></b>	<b>OA-432</b> 420-450MHz.. <b>\$54<sup>95</sup></b>

**Stacking Harnesses for 2 OmniAngles (3dB Gain)** - Made of Belden 8213 and silver/gold/teflon connectors, 70cm model uses N connectors

<b>SK-50</b> for OA-50 ..... <b>\$36<sup>95</sup></b>	<b>SK-222</b> for OA-222..... <b>\$34<sup>95</sup></b>
<b>SK-144</b> for OA-144 ..... <b>\$34<sup>95</sup></b>	<b>SK-432</b> for OA-432..... <b>\$54<sup>95</sup></b>

ANTENNAS AMERICA, INC.



**The Freedom Antenna** A concealed-disguised antenna system that mounts on-glass, inside the vehicle. Uses an advanced, copper-etched serpentine array contour design. At .013" thick, its ultra-thin interior-mount design virtually disappears into your windshield. At only 3 1/2" square, its "stealth-like" finish blends totally into the glare band. Simply locate the recommended area on your windshield interior. Then, apply like a decal, route the cable and connect to your radio. No holes to drill, no magnet scratches, no suction cup smudges and no clips.

**HVA-146** 140-155 MHz - **\$69<sup>95</sup>** • **HVA-460** 435-480 MHz - **\$69<sup>95</sup>**



# Vertically Speaking THE BEST!

... / VERSATILE  
MULTIBAND  
VERTICAL  
ANTENNAS

- HF2V
- HF6V
- HF9V

Offering 2, 6 and 9 Band Verticals with optional 160 Meters. Butternut's unique, patented design solves traditional problems that are associated with vertical antennas. Many verticals rely on lossy traps to offer multiband performance - which causes narrowed bandwidth. The Butternut trap-free design offers superior bandwidth and much greater radiation efficiency.

## SPECIFICATIONS

### Frequency:

- HF2V • 40 & 80M
- HF6V • 10, 15, 20, 30, 40 & 80M
- HF9V • 6, 10, 12, 15, 17, 20, 30, 40 & 80M (Opt. 160M kit avail.)

Height: 26 ft. HF6V/HF9V  
32 ft. HF2V

### VSWR @

Resonance: 1.5:1 or less on all bands



Call or write for our Free New Color Brochure!  
(Ask for the designers Dirty Little Secrets!)

831 N. Central Avenue, Wood Dale, IL 60191  
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Fax: 630-238-1186  
http://www.bencher.com  
e-mail: bencher@bencher.com

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## Van Gorden Engineering



**Dipole Antennas:** Complete with Hi-Q 1:1 balun, #14 stranded copper antenna wire, plastic insulators, and 100 ft. of nylon rope. Rated for full legal power. May be used in an inverted-V configuration.

**D-80** 80/75m, 130'... **\$32<sup>95</sup>** **D-15** 15m, 22'..... **\$27<sup>95</sup>**  
**D-40** 40/15m, 66'.. **\$29<sup>95</sup>** **D-10** 10m, 16' ..... **\$26<sup>95</sup>**  
**D-20** 20m, 33' ..... **\$28<sup>95</sup>**

**Shortened Dipoles:** Construction is the same, and includes traps as shown above.

**SD-80** 75/80m, 90'... **\$36<sup>95</sup>** **SD-40** 40m, 45'.. **\$34<sup>95</sup>**



**All-Bander Dipole Antenna** Covers 160 to 10M using an antenna tuner with balanced output. Full 135 ft. long (or less, as an inverted V or sloper). Trim to fit small lots. Assembled, with #14 gauge copper wire, center and end insulators and 100 ft. of 450Ω balanced line. 2KW PEP..... **\$29<sup>95</sup>**

**SHORTY All-Bander** As above, but with loading coils to shorten the length to 70 ft. overall..... **\$44<sup>95</sup>**

## Multiband Antenna:

**G5RV** Covers 3.5 to 30 MHz, +1.8 MHz as a Marconi-type antenna with a tuner. Consists of a 102 ft. flat top with a 31 ft. long section of 300Ω KW twinlead, a transformer/coupler and 70 ft. of RG-8X coax and connector. 2KW PEP, assembled ..... **\$50<sup>95</sup>**

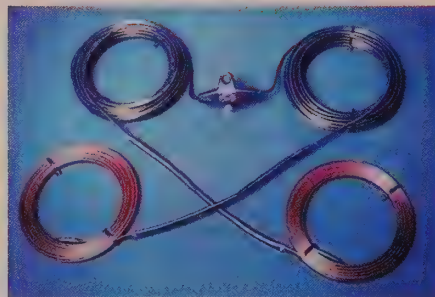
**G5RVJr** 10-30MHz 17 ft. twinlead..... **\$24<sup>95</sup>**

**G5RV-E** 3.5-30MHz, 102 ft., 31 ft. twinlead.. **\$28<sup>95</sup>**

**G5RV-M** 1.8-30MHz, 204ft., 65 ft. twinlead.. **\$50<sup>95</sup>**



## INTERNATIONAL ANTENNAS Double Bazooka Antennas



On the WEB: [www.iacantennas.com](http://www.iacantennas.com)

Double Bazooka 1/2-wave antennas are constructed with a flat-top of 50Ω coax and a section of open-wire line at each end. The shield is split in the middle, but the center conductor and insulation are left intact. The feedline connects to the split shield which becomes the radiating element. This results in quiet, broadband operation with 98% efficiency and 50Ω feedpoint; balun not required. Mounts horizontally or as an inverted V. Handles legal RF power limit. Has weatherproof center insulator with coax connector.

The 80 meter version will operate efficiently on all bands with addition of antenna tuner.

**80M Bazooka**, 3.5 MHz (75-80M), 121'..... **\$135<sup>95</sup>**

**40M Bazooka**, 7 MHz (40M), 64'..... **\$115<sup>95</sup>**

**160M Bazooka**, (160M), 248'..... **\$195<sup>95</sup>**

## THE NEXT GENERATION COMPETITION GRADE TRIBAND YAGI!

# SKYHAWK 3X10

3 band & 10 element

20-15-10 Meters

- WIDE BANDWIDTH
  - EXCELLENT F/B RATIOS
  - SUPERB GAIN
  - LOW WEIGHT
  - ZERO MAST TORQUE
  - 90 MPH WIND SURVIVAL
  - 100% RUST-FREE MATERIALS
- REDUCED PERFORMANCE ON 17 & 12 METERS



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# MFJ ENTERPRISES, INC. HT Range Extenders

**MFJ-1714 Long Ranger™**  
2M Halfwave For really long range, this MFJ end-fed halfwave is hard to beat. It outperforms a 5/8 wave on a handheld because the 5/8 wave needs a ground plane where the MFJ halfwave does not. It is shorter, lighter, has more gain & places less stress on your antenna connector than a 5/8 wave. When collapsed, it performs like a rubber duck. It is 40" extended and 10 1/2" collapsed..... **\$16<sup>95</sup>**

**MFJ-1712 Dual Bander™**  
2M and 440 MHz Got a new dualband handheld or separate units? One antenna fits all. It's 1/4 wave for 2M and 5/8 wave with gain for 440 MHz. 7 1/2" collapsed, 19" extended..... **\$14<sup>95</sup>**

**MFJ-1710 Pocket Linear™** 3/8 Wave, 2M Carry in your pocket like a ballpoint pen. When using your rubber duck, on the fringe and noisy, put on the Pocket Linear, extend to 24 1/2" and carry on your QSO. Pocket clip. 5 1/2" collapsed ..... **\$9<sup>95</sup>**

## RuffRider™ Super Gain Mobile Antennas

This series features the finest quality construction using precision machined components. Designed to battle the elements, handle rugged rides & daily highway abuse.

Dual band 144/440 MHz mobiles have stacked stainless steel elements with high-Q

phasing coils resulting in outstanding gain. Phased radiators flatten radiation patterns & concentrate transmit power at the horizon for max. distance.

All models are factory tuned for an SWR less than 1.5:1 and have 50Ω impedance. Each comes with a SO-239 base but also includes a FREE NMO adapter.

**MFJ-1402 RuffRider™ Junior** 16 1/2" ant. fits in any garage on any vehicle. 3dB gain on 2M, 5.5dB gain on 440MHz. Handles 100W. No fold-over..... **\$34<sup>95</sup>**

**MFJ-1412 RuffRider™ High Power.** Only 40" long but handles full 200W. Great for a high power mobile and amplifier. 3dB gain on 2M, 5.5dB gain on 440MHz ..... **\$49<sup>95</sup>**

**MFJ-1422 RuffRider™ High Gain** 41 1/2" long antenna gives you extra gain with little increase in height. Handles 150W. 3.2dB gain on 2M, 5.7dB gain on 440MHz ..... **\$49<sup>95</sup>**

**MFJ-1432 RuffRider™ Super Gainer** Tall 62 1/2" brute gives you a whopping 5dB gain on 2M, 7.6dB gain on 440MHz. Handles 150W ..... **\$69<sup>95</sup>**

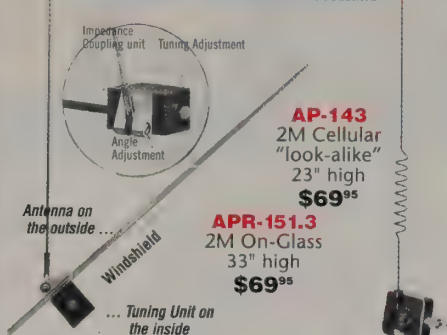
## RuffRider™ Mobile Mounts

Super heavy duty antenna mounts with SO-239 base. Use adapter for NMO. Includes 10' of low loss coax with PL-259 connector. Bases are heavy duty and super rigid to reduce SWR flutter due to wind vibration. Double Allen set screws fasten the radiator & a specially treated center pin provides excellent electrical connection. Allen wrenches, protection caps and locking screws included.

**MFJ-340 Mirror/Luggage Pipe Clamp Mount** Mounts on support rod of mirror, luggage rack or spare tire carrier of a truck, van, RV or SUV. Mounts on any horiz., vert. or angled rod/pipe up to 5/8" in dia. Secures VHF, UHF & medium size HF antennas even at highway speeds. Convenient thumb and finger turn knob makes fold-over operation quick and easy. Locks in 12 different positions ..... **\$34<sup>95</sup>**

**MFJ-345 Trunk/Hatchback Lip Mount** Mounts to any lip on your vehicle. Extra-wide 4" lip and large reinforcing tabs on each side safely distributes the load. Secures large VHF, UHF and medium size HF antennas even at highway speeds. Scratch-proof rubber guard protects vehicle's finish ..... **\$34<sup>95</sup>**

## ANTENNA SPECIALISTS "On-Glass™" Mobile Antennas



**AP-143**  
2M Cellular  
"look-alike"  
23" high  
**\$69<sup>95</sup>**

**APR-151.3**  
2M On-Glass  
33" high  
**\$69<sup>95</sup>**

No holes to cut! The small Tuning Unit attaches to the glass inside the vehicle, and couples capacitively through-the-glass to the Radiating Element mounted on the outside. Installs with easily removable adhesive. Includes adhesive, 15 ft. of coaxial cable with PL-259 connector.

Power.....	100 watts	Radiator.....	Electrical 1/2-wave
Freq. Range.....	144-174 MHz	Coupling Unit.....	Shunt fed, DC gnd
	(APR-151.3)	Whip Material...	Stainless steel, 138-150 MHz (AP-143) black DURA-COAT™ finish
Bandwidth.....	6MHz, tunable	Whip Length	33 in. (APR-151.3)
VSWR.....	Less than 1.5:1		23 in. (AP-143)
Impedance.....	50Ω nominal	Cable.....	15' RG-58/U w/PL-259

## Forbes Group Ventenna™

Get around those antenna restrictions & finicky neighbors. Ventenna is virtually unnoticeable - it looks like part of a normal structure. To install, just slip over an existing 1"-2 1/2" plumbing vent pipe, connect the coax - you're on the air.

Ready to go! - No Tuning or Measuring required.

Single band models for 2 meters, 220MHz or 440MHz & a 2M/440MHz Dual Bander.

<b>VT-14</b>	2 meters, 3 ft. tall, 2.6dB gain .....	<b>\$49<sup>95</sup></b>
<b>VT-22</b>	220MHz, 25" tall, 2.6dB gain .....	<b>\$49<sup>95</sup></b>
<b>VT-27</b>	2m/440MHz Dual bander.....	<b>\$74<sup>95</sup></b>
<b>VT-44</b>	440MHz, 14" tall, 2.6dB gain .....	<b>\$49<sup>95</sup></b>
<b>VT-15S</b>	Scanner model 3 ft. tall, 2.6dB .....	<b>\$49<sup>95</sup></b>

## NEW WAVE Antenna PORTABLE Collapsible Masts



**Portable or Temporary antenna installations!**  
7-section, telescoping masts manufactured from 6061-T6 polished aircraft alum. with a taper from 2"-1 1/4". Lightweight, easily raised by one person at ground level in secs. Each section joint has a 4" overlap and snaps into place. Conveniently rotates at any section along its length, or securely locks into place. Options: snap-on ant. mount and park-on steel mount.

**Adventurer**  
47" to 12 ft, 4 1/2 lbs ... **\$109<sup>95</sup>**

**Traveler**  
59" to 19 ft, 6 1/2 lbs ... **\$124<sup>95</sup>**

**Rover**  
71" to 26 ft, 8 1/2 lbs ... **\$149<sup>95</sup>**

**Expeditioner**  
83" to 33 ft, 10 1/2 lbs. **\$174<sup>95</sup>**

**Explorer**  
95" to 40 ft, 12 1/2 lbs. **\$199<sup>95</sup>**

**Big Foot**  
Park-on mount, 8 1/2 lbs **\$119<sup>95</sup>**

**Snap-on Mount**  
Antenna mount. Attach antennas to portables without tools. Adds 12" to the top ..... **\$19<sup>95</sup>**



## Bugcatcher HF MOBILE ANTENNA



### BG-1500-6

- MULTIBAND COVERAGE - All Ham bands 3.5 to 30 MHz - plus 6 meters
- EASY BAND SWITCHING to pre-tuned frequencies on any band - just move the tap!
- Adjustable capacity hat for fine tuning
- 1500 watt power rating, 3/4 inch corona ball
- 24 inch stainless steel base, total overall length 90 inches. • Quick disconnect..... **\$165<sup>95</sup>**

**MM-1 Mobile Antenna Matcher** Installs between Bugcatcher and mount. Moving the tap provides adjust. of the base impedance to better match the transmission line. Improves performance ..... **\$19<sup>95</sup>**



### OR-2800PDC Heavy-duty

- Rotator** Designed for large arrays of up to 35 sq. ft. wind load
- Rotating torque over 200 ft/lb-cannot be turned by mast torque
  - Handles 1.75 to 3" masts and 1800 lb. vertical load, fits inside many popular towers
  - Control unit features digital readout, variable speed, reverse delay; north or south stop, adjustable travel limits, 1/2-degree target accuracy .. **\$1429<sup>95</sup>**



## Channel Master® REMOTE CONTROL ANTENNA ROTATOR

**Model 9521 Drive Unit:** • Handles small VHF, UHF and TV antennas • One piece cast aluminum housing • Heavy-duty rotator motor, 3-wire control • Wind-tested brake pad • Durable powder-coated paint finish • Precision-cut gear system • Built-in steel thrust bearings  
**Control Unit:** • Compatible w/most universal remote controls • 69 channel programmable non-volatile memory • Automatic synchronization for pinpoint accuracy • Direct access via channel number or compass heading..... **\$99<sup>95</sup>**

**Model 9515 Drive Unit:** • Looks similar to 9521, but has stronger gearing and housing to handle UHF/VHF arrays and Large TV antennas with a windload of less than 5 sq. ft.  
**Control Unit:** • Manual control, no remote..... **\$129<sup>95</sup>**



ROTATORS

ANTENNAS



# YAESU



**YAESU ROTATORS** – precision designed for a wide variety of antenna installations • Strong, Weatherproof, Die-cast Aluminum enclosures • Permanently Lubricated for years of smooth, quiet operation. • 450° Rotation • Selectable North or South Center • Quiet, Gear Reduction Braking • Quick-disconnect Plug • 117/220 VAC • Fits most USA-made tower shelves.

Models	G-2800SDX	G-1000SDX	G-800SDX	G-800S	G-450A	G-550	G-5500
Application	The top-of-the line rotator for <b>Extra Heavy-Duty</b> antenna installations.. Total rotation range 450°, with presets	High-performance for <b>Medium and Heavy-Duty</b> applications. Total rotational range 450°, with presets	High-performance for <b>Medium</b> applications. Total rotational range 450°, with presets	For <b>Medium-Duty</b> applications, without presets	For HF/VHF <b>Light/Medium-Duty</b> applications, without presets	<b>Elevation</b> rotator, for satellite earth station and other space communication antennas	<b>Azimuth-Elevation</b> rotator combination for satellite earth station and other space communication antennas.
Wind Load	34 sq.ft.	23 sq.ft.	17 sq.ft.	17 sq.ft.	10 sq.ft.	10 sq.ft.	11 sq.ft.
Stationary Torque	1,808 ft.-lbs.	433 ft.-lbs.	288 ft.-lbs.	288 ft.-lbs.	217 ft.-lbs.	101 ft.-lbs.	145 ft.-lbs.
Rotation Torque	57.8-181 ft.-lbs. <sup>(1)</sup>	43-79 ft.-lbs. <sup>(1)</sup>	43-79 ft.-lbs. <sup>(1)</sup>	43-79 ft.-lbs. <sup>(1)</sup>	43 ft.-lbs.	73 ft.-lbs.	Elevation 101 ft. lbs. Azimuth 44 ft. lbs.
Max. Vert. Load	661 lbs.	440 lbs.	440 lbs.	440 lbs.	220 lbs.	440 lbs.	440 lbs.
Backlash	±1/2°	±2°	±2°	±2°	N/A	±3%	±4%
Mast Size	1½-2½"	1½-2½"	1½-2½"	1½-2½"	1½-2½"	1½-2½"	1½-2½" Booms: 1¼" x 1¼"
360° Rotat. Time	48-150sec. <sup>(1)</sup>	35-74 seconds <sup>(1)</sup>	35-74sec. <sup>(1)</sup>	44 seconds	53 seconds	N/A	58 seconds
180° Eleva. Time	N/A	N/A	N/A	N/A	N/A	67 seconds	67 seconds
Computer Interface	GS-23 (\$299 <sup>95</sup> )	GS-23	GS-23	GS-23	N/A	N/A	GS-232 (\$469 <sup>95</sup> )
Rotator Dia. x Ht.	8 x 13½"	7½ x 12½"	7½ x 12½"	7½ x 12½"	7½ x 12½"	10½ x 7½"	12½ x 7½"
Weight	13.2 bs.	7.7 lbs.	7.5 lbs.	7.5 lbs.	7.5 lbs.	7.9 lbs.	20 lbs.
Cable Required <sup>(2)</sup>	6-wire	5-wire	5-wire	5-wire	6-wire	6-wire	2 x 6-wire
Price	<b>\$1139<sup>95</sup></b>	<b>\$519<sup>95</sup></b>	<b>\$429<sup>95</sup></b>	<b>\$339<sup>95</sup></b>	<b>\$259<sup>95</sup></b>	<b>\$299<sup>95</sup></b>	<b>\$629<sup>95</sup></b>

(1) On models with "SDX" suffix, rotation speed and torque vary with the speed control setting. • (2) Belden 9405 (8-conductor) or equivalent is recommended.



**GC-038**  
Mast Clamp for  
450/800/1000/5500  
**\$31<sup>95</sup>**

**GC-048**  
Mast Clamp for  
2800SDX  
**\$47<sup>95</sup>**

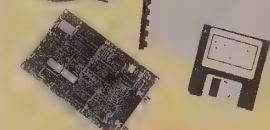


**GS-050**  
50mm Thrust Bearing  
for 1-1/4" to 2" mast  
**\$31<sup>95</sup>**



**GS-065**  
65mm Thrust Bearing for  
1-1/2" to 2-1/2" mast  
**\$47<sup>95</sup>**

## Satellite Tracking with your PC and the Kansas City Tracker & Tuner



**L.L. GRACE**

The Kansas City Tracker and Tuner programs are "Terminate-and-Stay-Resident" programs that attach themselves to DOS and disappear. You can run other DOS programs while your antenna tracks its target and your radios are tuned under computer control. This unique feature is especially useful for digital satellite work; a communications program like PROCOMM can be run while the PC aims your antennas and tunes your radios in its spare time. Status pop-up windows allow the user to review and change current and upcoming radio and antenna parameters. The KCT is compatible with DOS 2.00 or higher. **Satellite and EME Work:** The Kansas City Tracker and Kansas City Tuner are fully compatible with N4HY's QUIKTRAK and with Silicon Solution's GRAFTRAK. These programs can be used to load the Kansas City Tracker's tables with more than 50 satellite passes.

**DX Contests, and Nets:** Working DX or contests and need three hands? Use the Kansas City Tracker pop-up to work your antenna rotor for you. The Kansas City Tracker is compatible with all DX logging programs. A special callsign aiming program is included for working nets.

**Packet BBS:** The Kansas City Tracker comes complete with special control programs that allow the packet BBS user or control-op to perform automated antenna aiming over an hour, a day, or a week. Your BBS or packet station can be programmed to automatically solicit mail from remote packet sites.

**Vision-impaired Hams:** The KCT has a special morse-code sender section that will announce the rotor position and status automatically or on request. The speed and spacing of the code are adjustable.

**GRA KCT** KC Tracker package includes cable for Yaesu/Kenpro 5400/5500/5600 & rotor interface opt. (to connect any rotors)..... **\$229<sup>95</sup>** • **GRA KCT/T** KC Tracker package plus KC Tuner..... **\$319<sup>95</sup>**

## BELDEN Rotor Cable – See Price Guide

AES recommends you use Standard Duty cable for runs up to 100 feet. For longer runs, in order to deliver the proper voltage to the rotator, use heavy duty.

**8448** Standard duty, 8 wire For run up to 100 ft.

**9405** Heavy duty, 8 wire. For runs over 100 ft.

**8484** Standard duty, 4 wire.



**PHILIPS**

**Low Cost  
Antenna  
Rotator**

**U-105** Antenna Rotator featuring a one-piece cast aluminum housing, large bearing surfaces, reinforced mast support and a ball bearing for the vertical load. Precision-cut, hardened steel drive train and high torque — well equipped to handle small to medium VHF/UHF amateur and the largest TV & FM arrays. Control unit is smooth and quiet, synchronized with the drive by synchronous motors. **\$69<sup>95</sup>**

Rotation Range.....360° +5°-0  
Rotation Time.....70 Seconds  
Rotation Torque.....8 ft./lbs.  
Maximum Vertical load .....100 lbs.  
Support Mast Size.....1½ to 2" diameter  
Control unit .....7" w x 5½" d x 2½" h  
Weight (Rotator + control) .....10 lbs  
Control cable (4-wire) .....Use BELDEN 8484

**TB-105** Support Bearing for extra-sturdy installation when using the U-105 rotator. Relieves wear and tear on the drive unit imposed by wind loads. All ball bearing design, weather-tight seal. Installs on the support mast, above the U-105 ..... **\$18<sup>95</sup>**





# Martin Voyager Tower Systems

"So decidedly superior, there's no second choice!"

Why are Martin Voyager towers superior to others? Thoughtful engineering, quality materials, exceptional strength, beauty and durability. Glen Martin Engineering believes that a tower should be a lifetime investment that enhances one's home or business.

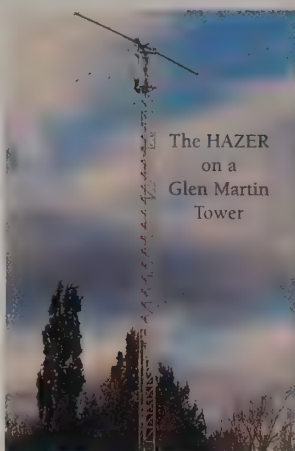
**COMPLETE ALUMINUM & GALVANIZED STEEL TOWER PACKAGES INCLUDE:** 10' sections, footing assembly, hinge base, HAZER (w/cable, winch, etc.), Kevlar cable guy kit, turn-buckles, earthscrew anchors, ground rod kit, & hardware.

## NO CLIMBING REQUIRED. Why?

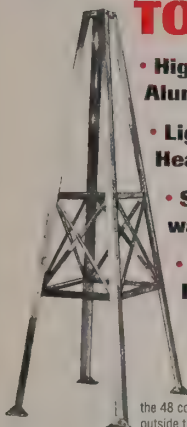
The Hazer does the climbing for you! The Hazer is a unique tram that rides up & down the outside of your Glen Martin or Rohn tower much like a flagpole. Raise and lower your antennas by simply turning a winch! Work on your antennas whenever you need, when you want! Hazer 2, 3, 4, 5 and 6 wrap around the tower and work best on 50 ft. towers. Hazer 7 & 22 incorporates its own separate track. See price list for additional accessories (lighting rods, thrust bearing, masts).

<b>M-1340A</b>	40' x 13" Alum. tower package w/Hazer 5
<b>M-1350A</b>	50' x 13" Alum. tower package w/Hazer 6
<b>M-1850A</b>	50' x 18" Alum. tower package w/Hazer 6
<b>M-1860A</b>	60' x 18" Alum. tower package w/Hazer 7
<b>M-1870A</b>	70' x 18" Alum. tower package w/Hazer 7
<b>M-2210</b>	100' x 22" Galv. Steel tower pkge w/Hazer 22

Hazers for Rohn 20/25 G & 45G			
Order#	Max Ant. Load	Wind Ability	Material
H-2	175 Lbs.	12 Sq. Ft.	Heavy Alum.
H-3	150 Lbs.	8 Sq. Ft.	Aluminum
H-4	200 Lbs.	16 Sq. Ft.	Galv. Steel
VH8-60	60' Hazer for Rohn 45, 22 sq. feet @ 87 MPH		



## ROOF-TOP TOWERS



- High Quality Anodized Aluminum/Satin Finish
- Lightweight & Extra Heavy Duty
- Stainless Steel Hardware/ Will Not Rust!
- Ideal for support of Ham Antennas, Scanners, Weather Monitors, AMSAT, etc.!
- Free Shipping\* \*Within the 48 contiguous states. Additional charges apply outside the 48 states



- See price list for more GME products & prices.
- Write or call for a complete GME catalog FREE!
- All GME products factory drop-shipped.

MODEL	Ht.	D' Inches	Base Width	Wind Load <sup>2</sup>	Max Ant. Wt.	Ship Wt.
<b>RT-424</b>	4.5'	34.75	24"	6sq.ft.	100	18 lbs.
<b>RT-832</b>	8.0'	43.75	32"	8sq.ft.	120	30 lbs.
<b>RT-936</b>	9.0'	43.75	36"	18sq.ft.	130	54 lbs.
<b>RT-1832</b>	17.5'	37.62	32"	12sq.ft.	110	62 lbs.
<b>TB-25</b>	Premium Thrust Bearing - Max Mast Dia 2.6"					3 lbs.

1 Distance from top of tower to rotor mount. 2 Rated at 87 MPH

E-mail: [info@glenmartin.com](mailto:info@glenmartin.com)

Web site: [www.glenmartin.com](http://www.glenmartin.com)



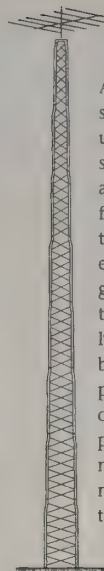
Glen Martin Display at AES Super Fest



**ROHN®**

## Heavy Duty HDX-Series Towers

All steel with X-brace construction for strength that allows a free-standing configuration without guy wires at 70 mph wind-speed with antennas up to 10 sq. ft. wind area and boom lengths not exceeding 10 ft. The galvanized steel provides an attractive and maintenance-free finish. The entire tower can be assembled on the ground and hinged up in to position with the optional hinged base, or built vertically, section by section. Supplied with BXB base stubs for concrete mounting, rotator plate, mast clamp and hardware. All makes of rotators can be installed on the rotator plate inside of the top section. Tubing furnished that can be held in place with the mast clamp on the top plate to act as a thrust sleeve for a 1-1/4 in. mast.



## Factory Drop Ship

Model	Height	Sections	Windload @70mph	Weight	PRICE
HBX-40/ BXB-6	40'	5	10sq.ft.	276 lbs.	\$490 <sup>95</sup>
HBX-48/ BXB-7	48'	6	10sq.ft.	353 lbs.	\$653 <sup>95</sup>
HBX-56/ BXB-8	56'	7	10sq.ft.	444 lbs.	\$820 <sup>95</sup>
Heavier Capacity Duty HDBX - Series					
HDBX-40/ BXB-7	40'	5	18sq.ft.	330 lbs.	\$612 <sup>95</sup>
HDBX-48/ BXB-8	48'	6	18sq.ft.	422 lbs.	\$816 <sup>95</sup>

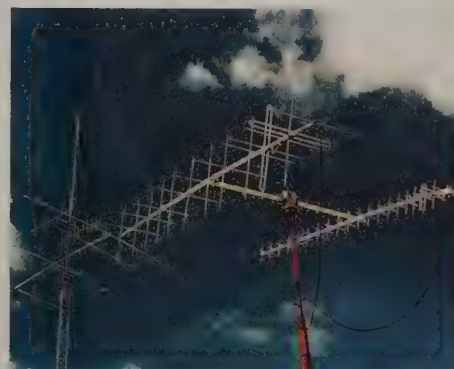
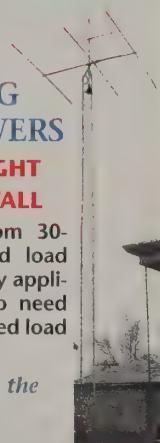
## UNIVERSAL FREE STANDING ALUMINUM TOWERS

**RUGGED • LIGHTWEIGHT  
RUST FREE • EZ INSTALL**

Configurations available from 30-100 feet with various wind load selections to meet almost any application. Self-Supporting – no need for unsightly guy wires at rated load

## Factory Drop-Ship

For more information see the Price Guide & Index



The antenna system at AES Milwaukee

**TOWERS**



**Check out our full line of accessories including:** Tower Motor Drives  
5 ft. to 20 ft. Antenna Masts • 20 ft. Chromolly Masts • Thrust Bearings • Mast  
Raising Fixtures • Rotating bases • Coax support arms • Limit Switch Packages

### MA SERIES CRANK-UP TUBULAR TOWERS

**Will handle 10 sq. ft. antennas at 50 MPH winds.**

MODEL NO.	HEIGHT MAX.	HEIGHT MIN.	NUMBER SECTIONS	WT #	SECTION OD Top	SECTION OD Bot.	BASE SIZE	AES PRICE
MA-40	40 ft.	21' 6"	2	242	3" sq.	4½"	12" x 12" x 12" .....	\$ 679.95
MA-550	55 ft.	22' 1"	3	435	3" sq.	6"	18" x 18" x 18" .....	1069.95
MA-550MDP*	55 ft.	22' 1"	3	620	3" sq.	6"	3' x 3' x 5' .....	2932.95
MA-770	70 ft.	22' 10"	4	645	3" sq.	8"	3' x 3' x 6' .....	2529.95
MA-770MDP*	70 ft.	22' 10"	4	880	3" sq.	8"	3' x 3' x 5½' .....	3999.95
MA-850MDP*	85 ft.	23' 6"	5	1128	3" sq.	10"	4' x 4' x 6' .....	5391.95

\*Standard bases and eave mounts included with all towers (except MA-770, 770-MDP and 850 MDP)

• MDP models complete with heavy-duty motor drive with positive pull down.

### FREE STANDING HEAVY-DUTY CRANK-UP TOWERS

**Will handle 18 sq. ft. antennas at 50 MPH winds.**

MODEL NO.	HEIGHT MAX.	HEIGHT MIN.	NUMBER SECTIONS	WT #	SECTION OD Top	SECTION OD Bot.	BASE SIZE	AES PRICE
TX-438	38 ft.	21' 6"	2	355	12½"	15"	3' x 3' x 5' .....	\$1142.95
TX-455	55 ft.	21' 6"	3	670	12½"	18"	3' x 3' x 6' .....	1399.95
TX-472	72 ft.	22' 8"	4	1040	12½"	21½"	4' x 4' x 7' .....	2832.95
TX-472MDP*	72 ft.	22' 8"	4	1210	12½"	21½"	4' x 4' x 7' .....	3899.95
TX-489	89 ft.	23' 4"	5	1590	12½"	25½"	4' x 4' x 7' .....	4927.95
TX-489MDPL*	89 ft.	23' 4"	5	1800	12½"	25½"	4' x 4' x 8½' .....	7390.95

\*TX-472MDP includes heavy duty motor drive with positive pull down. \*TX-489MDPL comes with heavy duty motor drive with dual level wind and positive pull down. MDPL models include fully operational limit switch packages.

### FREE STANDING HEAVY-DUTY CRANK-UP TOWERS

**Will handle 30 sq. ft. antennas at 50 MPH winds.**

MODEL NO.	HEIGHT MAX.	HEIGHT MIN.	NUMBER SECTIONS	WT #	SECTION OD Top	SECTION OD Bot.	BASE SIZE	AES PRICE
HDX-538	38 ft.	21' 6"	2	600	15"	18"	3' x 3' x 6' .....	\$1477.95
HDX-555	55 ft.	22'	3	870	15"	21½"	4' x 4' x 6' .....	2099.95
HDX-572	72 ft.	22' 8"	4	1420	15"	25½"	4' x 4' x 7' .....	4434.95
HDX-572MDPL*	72 ft.	22' 8"	4	1600	15"	25½"	4' x 4' x 8½' .....	6775.95
HDX-589MDPL*	89 ft.	23' 8"	5	2440	15"	30½"	5' x 5' x 8½' .....	8869.95
HDX-689MDPL*	89 ft.	23' 8"	5	3450	18"	37½"	5' x 5' x 9½' .....	17,135.95
HDX-5106MDPL*	106 ft.	24' 8"	6	3700	15"	37½"	5' x 5' x 9½' .....	18,647.95

\*Includes heavy-duty motor drives with dual level wind and positive pull down. MDPL models include fully operational limit switch packages. \*HDX-689MDPL rated 60 sq. ft. of antenna at 50 mph winds. HDX-5106MDPL rated at 35 sq. ft. of antenna at 50 mph winds

### FREE STANDING "LOW-PROFILE" COMPACT CRANK-UP TOWERS

**The SS will handle 18 sq. ft. and HD, 24 sq. ft. antennas at 50 MPH winds.**

MODEL NO.	HEIGHT MAX.	HEIGHT MIN.	NUMBER SECTIONS	WT #	SECTION OD Top	SECTION OD Bot.	BASE SIZE	AES PRICE
TMM-433SS*	33 ft.	11' 4"	4	315	10"	18"	3' x 3' x 4' .....	\$1219.95
TMM-433HD	33 ft.	11' 4"	4	400	12½"	20½"	3' x 3' x 5' .....	1477.95
TMM-541SS	41 ft.	12'	5	430	10"	20½"	3' x 3' x 4½' .....	1599.95

\* Rotators must be top mounted on SS models. Yaesu G800SDX will fit in and nest.

\*\*\* Any tower purchased with a MDP-750 or MDPL-1000 motor drive MUST be purchased with either the MCL-100 or the RMC-1000.

**WRITE OR CALL FOR A COMPLETE US TOWER CATALOG - FREE!**

SEE  
PRICE GUIDE  
FOR  
COMPLETE  
LIST OF  
ACCESSORIES



Tilt-over  
Base



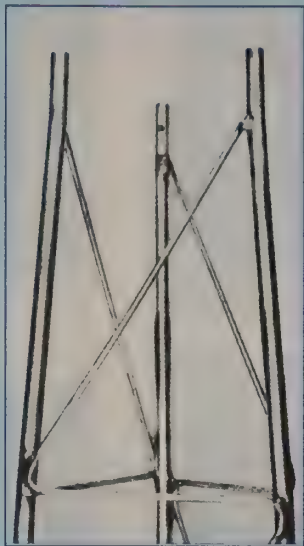
# UNIVERSAL TOWERS

## FREESTANDING

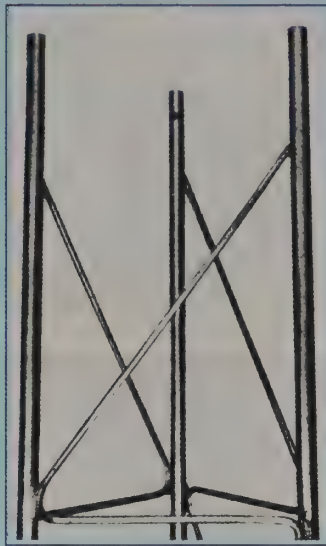
**LIGHTWEIGHT • RUST FREE • EASY TO ASSEMBLE • RUGGED STRENGTH**  
for AMATEUR RADIO • TV • FM • INDUSTRIAL • FIRE • POLICE • MARINE



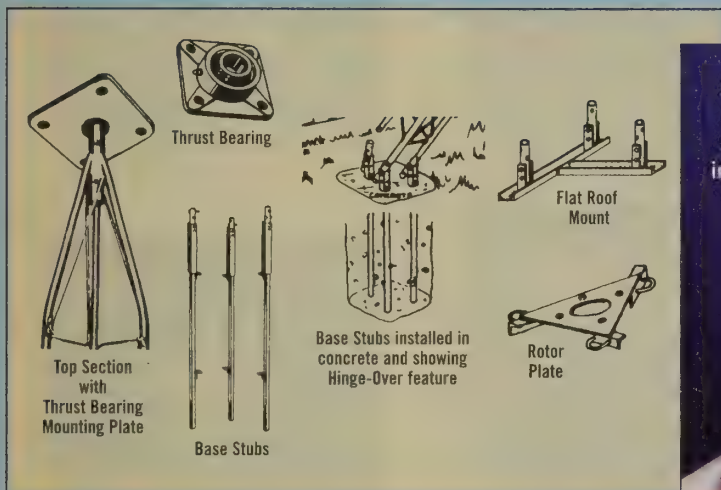
**TOP SECTION**



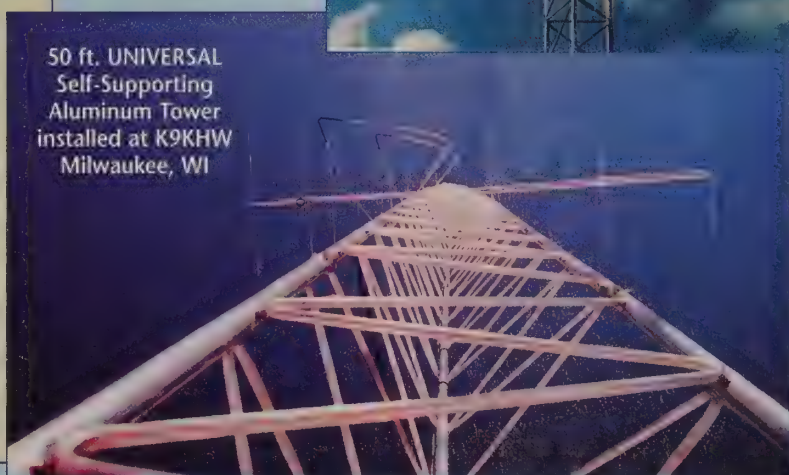
**TAPER SECTION**



**STRAIGHT SECTION**



50 ft. UNIVERSAL Self-Supporting Aluminum Tower installed at K9KHW Milwaukee, WI



**Antennas**  
(2M) ~~M2~~ 2M5WL  
17 elements, 33 ft. boom  
(6M) ~~M2~~ 6M7JHV  
7 elements, 31 ft boom  
(6M) ~~M2~~ 6A-6's  
omni, side mount/stacked

**Write or Call for a complete UNIVERSAL TOWERS Catalog FREE!**

## SECTIONS

Universal Aluminum Tower sections are an equilateral triangular welded truss, 10 ft. in length and available 11, 14, 18, 22, 26 or 30 inches wide.

## CHOOSING THE PROPER TOWER

- (1) Determine the projected surface area of the antenna that you intend to mount. This figure is often in the literature that comes with the antenna. Otherwise: standard T.V. antennas are about 2 sq. ft. in area; 6/10 meter beams and large T.V. antennas, 5 sq. ft. ; 20/40 meter beams, 9 sq. ft.; large 20/40 meter beams or multiple antenna arrays, 18 to 26 sq. ft. Also, when using a rotator to add 1 sq. ft. plus 1 sq. ft. for the mast to whatever size antenna you intend to use.
- (2) Decide on the tower height that you want. Universal towers are made in 10 foot sections to give you many possible sizes and the ability to add sections later.
- (3) Choose the tower model based on height and windload. The model number is merely the wind loading followed by the height. For example, if your antenna calculation resulted in a tower designed for 5 sq. ft. and you wish it to be 50 ft. high, the model you want is a **5-50**.

*See the Price Guide for Configurations and Prices.*

**No Guys!**  
**Self-Supporting**  
**at the Rated Load**

**BEFORE BUYING A TOWER**  
Consider the advantages of -  
**ALUMINUM**

It's Strong, Lightweight, Rust Free and easy to assemble and erect.  
UNIVERSAL offers 10 ft. sections or complete towers ranging from 10 to 100 ft. with a choice of wind load ratings and accessories to meet your specific needs.



# WELCOME TO



**AMATEUR RADIO TRADER**  
Barbara Patterson, KF4MVV



**ALINCO** Jennifer Threadgill & K. Nakata, KE6RD



**ALPHA DELTA OUTBACKER**  
Shan and Jim Burns, WB4ILP



**ADI PREMIER**  
Ken Collier, K06UX



**BENCHER/BUTTERNUT** Micheal List, Bob Locher, W9KNI



**CQ MAGAZINE**  
Arnie Spasato, N2IQO



**HEIL SOUND**  
Sarah and Bob Heil, K9EID



**COMET** Jim Einwalter, KF6PHR & Mick Stwertnik, KB6JVT



**HAL** Mike Broga, W9KVF



**GAP ANTENNA** Richard Henf, KD4DQN



**DIAMOND ANTENNA**  
Merit Arnold, W6NG





**PROAM** Bob White (left)



**MFJ/AMERITRON/MIRAGE/VECTRONICS**



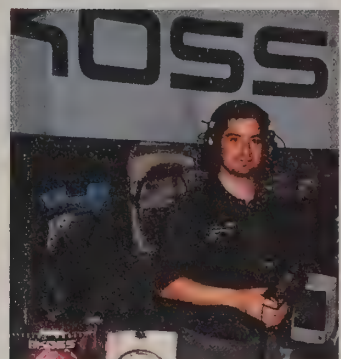
**LARSEN**  
Dave Barquist, K9PAK (center)



**KENWOOD** Leo Famhie, KJ6HI



**MAHA** Makk Christian, KB6SRT (center)



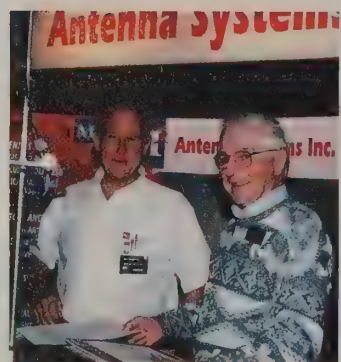
**KOSS** Adam Miklas



**ICOM** Dave Wallace, KK7KJ (left)



**SGC** Pierre Goral, K17UA, Calin Mocanta



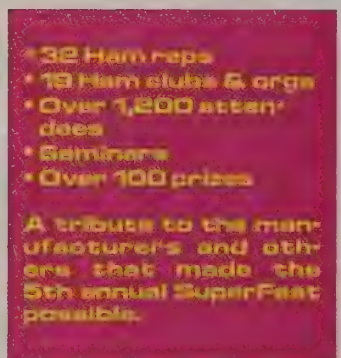
**M<sup>2</sup> ANTENNAS**  
Mike Staal, K6MYC (left)



**YAESU**



**UNIFIED MICROSYSTEMS** Gary Sutcliffe, W9XT





# We Invite You to Visit the Nearest AES® Location

**HOURS (all stores):** Monday – Friday 9:00 A.M. - 5:30 P.M. • Saturday 9:00 A.M. - 3:00 P.M.



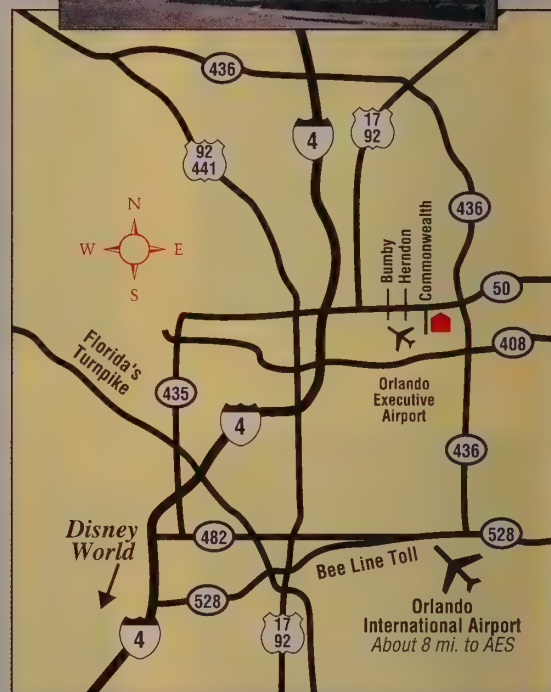
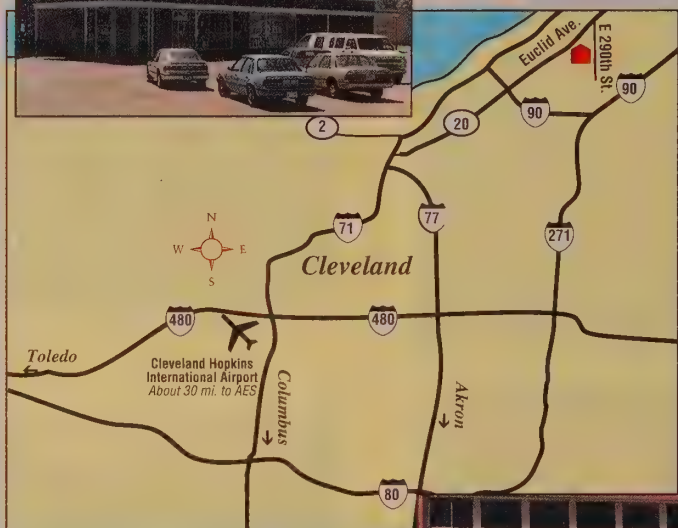
## Milwaukee, Wisconsin – Headquarters

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414-358-0333 • 1-800-558-0411



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28940 Euclid Avenue  
440-585-7388 • 1-800-321-3594



## Las Vegas, Nevada

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702-647-3114  
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## Orlando, Florida

621 Commonwealth Avenue  
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# AMATEUR ELECTRONIC SUPPLY<sup>®</sup> LLC

Proveedores de equipos para los radioaficionados de las Américas



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Estamos cerca del Aeropuerto Internacional de Orlando, Florida ee uu

### Tres radioaficionados expertos para atenderles

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¡Ningún pedido es demasiado grande o chico!*



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ti2wd@hotmail.com



Eddie KD4RAZ  
kd4raz@hotmail.com

**Internacionales**  
**1-407-898-1166**  
**export@aesham.com**  
**www.aesham.com**



Luis WP4JSR  
wp4jsr@hotmail.com

#### ABREVIACIONES IMPORTANTES

AMP	Amplificador
ANT	Antena
AT	Acoplador automatico de antena
BATT	Bateria
BKT	Braket de montura
BPR	Guarda choque
CGR	Cargador
CIG	Conector cigarillo
CNTR	Contador
DB	Decibeles
DLX	Lujo
DPLX	Duplexador
EL	Elemento
FREQ	Frecuencia
GND	Tierra
GTR	Labio de ventana
HT	Radio de mano
HVY	Pesado
KYR	Llave
MA	Miliamperes
MAG	Magnetico
MAINT	Mantenimiento
MIC	Microfono
MT	Montura
MTG	Montura
NMO	Montura Motorola
PROG	Programable
PS	Fuente de poder
PWR	Poder
RCVR	Receptor
REM	Remoto
SENS	Sensitividad
SPKR	Bocina
SPLX	Simplex
SYS	Sistema
TTP	Teclado de botones
VOL	Volumen
W/	Con
WPM	Palabras por minuto
XCVR	Transceptor

#### Para Contactar:

**AMATEUR ELECTRONIC SUPPLY<sup>®</sup>** • 621 Commonwealth Avenue,  
Orlando, Florida 32803, EUA Tel. 1-407-894-3238; Toll Free: 1-800-327-  
1917; Fax: 1-407-894-7553; **Internacionales: 1-407-898-1166**

**Forma de pago:** El pago que se prefiere es por transferencia de fondos. No se aceptan giros bancarios internacionales. Las tarjetas internacionales de crédito se aceptan únicamente en nuestros salones de venta. Nuestra dirección para la transferencia de fondos es: Barnett Bank of Orlando, Fashion Square Branch, Orlando, Florida. Routing #063000047, para crédito a Amateur Electronic Supply – Acct. #2836088068.

**Método de envío:** El envío se hará de acuerdo con sus instrucciones. Si UD. no las indicia AES hallará el método más adecuado.

**Garantía:** La fábrica garantiza sus equipos únicamente dentro de los Estados Unidos. Si su equipo necesitara reparación debe devolverlo a AES con una copia de la garantía y de la factura dentro del plazo autorizado por el fabricante. AES se reserva el derecho de reparar o substituir el equipo que no funcione como diseñado por razones que no resultaron por daño durante el envío. Al recibir el equipo que no funcione o por defectos debe notificarse a AES antes de los 10 días después de recibido. El equipo debe empacarse en la caja original usando los materiales de empaque originales. **El costo del envío, tanto de ida como de vuelta, es por cuenta del cliente.** Los precios y garantías pueden cambiarse sin previo aviso. Algunos productos no pueden ser exportados a ciertos países de acuerdo con las legislaciones locales.







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STORE MANAGER



DAVE WB8BAG



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LARRY N4DBR



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ROD WB8RQX



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EDDIE KD4RAZ  
Hablo español



ERNIE K1HO



GRANT K4IQW  
STORE MANAGER



LUIS WP4JSR  
Hablo español

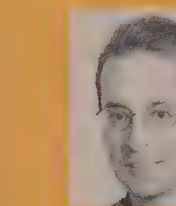


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KENNY WB7NLB



LUKE KK7BW



MEL N6SJQ



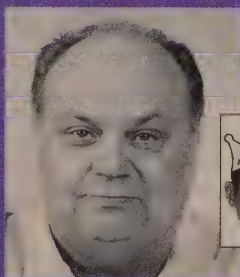
SQUEAK AD7K  
STORE MANAGER



TERRY

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**AES Founder**  
**Terry J. Sterman,**  
**W9DIA, SK**



Terry, who founded Amateur Electronic Supply as a teenager in the 1950s, has died. He was 60 years old and had been in ill health for several years. First licensed in 1953, Terry got into the Amateur Radio business as a teenager while working in his father's TV and electronics parts store, Harris Radio Corporation, in Fond du Lac, WI. In 1957, when he was just 18 years old, he founded American Electronic Supply. In business, he took pride in being known as "The King of the Traders", and was the youngest person ever to hold a Collins Radio franchise. Through hard work and dedication, he went on to have a substantial impact on the ham radio marketplace.





MILES, K9HMQ • Milwaukee



PAUL, N9KEZ • Milwaukee



STEVE, N9SO • Milwaukee

Unlike some dealers, when you purchase a New radio from us our Service Department is able to provide you with outstanding technical support. Our 7 full-time and 4 part-time technicians have more than 70 years of cumulative experience in the ham service field.

### Warranty Service

New radios within the manufacturers' warranty period will be repaired at no charge by AES or the manufacturer. Please refer to manufacturers' warranty information when unsure of warranty time periods.

### Out-Of-Warranty, Late Model Equipment

Whether the item was purchased from us or not, we will attempt to service it, provided service parts are still available. Before shipping your out-of-warranty items, arrangements must be made by phoning the Milwaukee Service Department at 414-358-4087 9am to 5:30pm Central Time.

### Shipping Equipment for Service

Before sending your item, make sure you contact the nearest AES location and find out the time frame for repairs. If you are concerned about time limitations, this will help you determine where to send the repair and how long your radio will be out. Always include the following along with the item being shipped:

- a detailed note describing the problem(s)
- your address, day-time phone number, and email address
- a copy of the original invoice, if the item is still under warranty
- the method of payment (see Policies page for a complete list of options)

After packing your item securely in a box with ample packing materials (foam, styrofoam spacers, etc.), mark the shipping label "ATTN: Service." And, always insure your items when shipping.

### Labor Rates

Out-Of-Warranty service \$54 per hour

- \$72 minimum on HF/VHF base stations
- \$54 minimum on VHF mobiles and handheld transceivers

The total cost will also include labor, parts and return shipping.

**CALL 414-358-4087  
for SERVICE**



JOHN, WA8PKB • Wickliffe



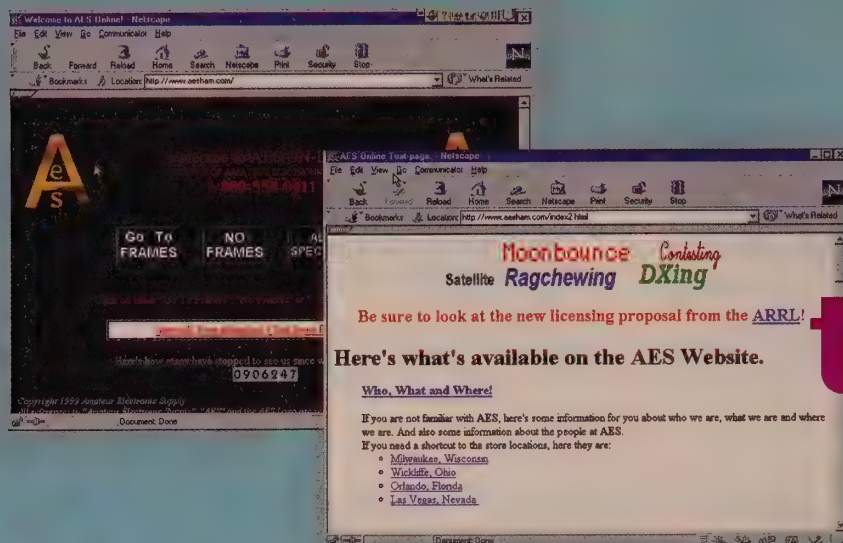
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# the whole store online



## VISIT

# the site

## www.aesham.com

No.	Description	Size	Time (in 28 S)	Click Here to Droid
1				
2				
3	Antennas: Ombicraft, Diamond, Alpha Delta, Outbacker, KLM, Comet, Gap and others.	2.1M	8.5 min	
4	Antennas and accessories, Coax, Tuners, Switches, Lightning Protection, Rotors, Towers and more.	802K	3.5 min	
5	Radios: ADI, Cherokee, Drake, Icom, Premier, SGC, Same Alinco, Kenwood and Yaesu. Also Heli, and Keys and Keyers.	1.2M	7 min	
6	Power Supplies, RF Power Amplifiers, Meters & Test Equipment, Educational Material, Miscellaneous	1.4M	7 min	
7	Consumer Electronics: GPS, Short-wave radios, Scanners, Pocket	2.15M	11 min	
8				

**Specials and Closeouts!**

The items on the first section of this page are Specials, regular products that have a temporary price even lower than our normal AES low price. On the lower portion of the page marked "Closeouts" are items that are discontinued or that AES will no longer be handling.

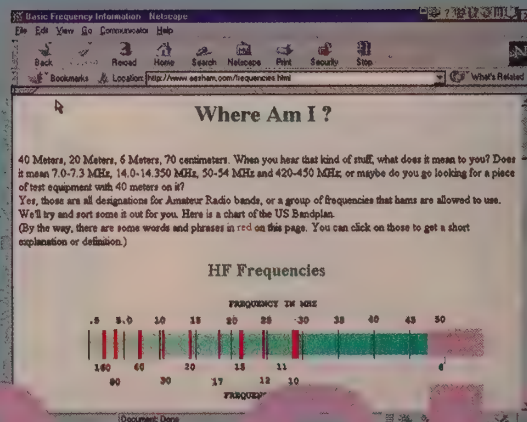
**FREE SHIPPING!**  
Between 4/15/99 and 5/15/99 on orders over \$200.00, AES is offering FREE UPS GROUND SHIPPING to the 48 contiguous states. (Does not apply to ship ship and special orders)

**ADI**

AT-600HP	\$259.95 (1)	AT-201HP	\$149.95 (1)
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**Alinco**

DJ-79	\$79.95	DJ-S41T	\$79.95 (1)
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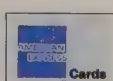
**COD ORDERS** Minimum COD order is \$20.00, shipment via UPS Ground only (no air or parcel post). The flat-rate, plus a \$6.50 COD fee per package applies. Payment by money order or certified check, only.

**DAMAGED ITEMS** If the customer discovers a damaged shipment, **THE CARRIER SHOULD BE NOTIFIED IMMEDIATELY.** The merchandise should not be returned to us until notified to do so by the carrier. All packaging materials must be retained including styrofoam peanuts, inner and outer cartons, labeling, etc. for inspection by the carrier or the claim may be denied. With shipments properly packaged (as all our shipments are), the ultimate responsibility for delivery in good condition rests with the carrier.

**DEFECTIVE ITEMS** Defective items should be returned to Amateur Electronic Supply or the manufacturer for warranty repair or replacement, at our discretion. After processing, we will return it via UPS Ground, prepaid at our expense. If you receive defective equipment, call our Customer Service Department at 414-358-4087 for instructions. Canadians please see "Canadians Note," under TRADE-INS.

**INTERNET ORDERS** The customer may order products directly on our web site via our internet order form. If the customer does not have access to the web, but has an e-mail account, the customer may e-mail his/her order making sure the following information is included: full name, call sign (not required to order), phone number, billing address, shipping address, item(s) to be purchased (model number and manufacturer) and method of payment. If paying by credit card, we need the card number and expiration date.

**PAYMENT** Accepted forms of payment are electronic bank transfer, certified check, personal check, money order, credit card (VISA, MasterCard, Discover, American Express, IMPAC), or COD. The customer's choices of payment methods may depend on amount of purchase or destination of shipment.



We accept U.S. Government I.M.P.A.C.® Credit Cards

**PRICING** We will pass on decreases in pricing to our customers whenever possible. Due to foreign currency fluctuations, promotions, manufacturers' specials, etc.; prices may vary, so be sure to confirm prices when ordering. All prices and specifications are subject to change without notice. **AMATEUR ELECTRONIC SUPPLY®** is not responsible for typographical errors or omissions.

**REFUNDS** Amounts under \$5.00 are not refunded unless requested in writing to the Milwaukee headquarters within 12 months.

**RETURNS** In order to maintain the lowest possible prices, we do not offer a *free trial or evaluation period* on new equipment. If permitted, an **Authorized** return of merchandise for credit (it must be like new with all original packaging) will be subject to a **Minimum 15% Restocking Fee.** The item must be returned within **10 days** after receipt, prepaid, with a copy of the purchase invoice and a letter describing the reason for the return. No returns on antennas, towers,

cable, items drop-shipped from the manufacturer, audio or video tapes, kits, books, or computer software. Canadians please see "Canadians Note:" under TRADE-INS.

**SHIPPING** Shipping charges, which include adequate insurance, are based on the Order Total at the time of the initial shipment (COD fees not included). The order amount on which charges are determined is pre-coupon and pre-tax. Cancellations on partially shipped orders will not affect the shipping charges. All back-orders from partially shipped orders are shipped PREPAID at the expense of AES® via UPS Ground Service, only.

Shipping calculations on UPS Ground service to the contiguous 48 states have been simplified by utilizing flat-rate categories. Other UPS methods (Red, Blue & Orange) and any USPS methods are charged at regular rates without any credit for UPS ground rates. CODs are not accepted for these faster methods.

Shipments to APO/FPO are via Priority Mail. Orders exceeding UPS or USPS weight, size or value limits will be shipped via Truck or Air Freight collect. Shipping charges taxable in WI, FL & NV.

**TRADE-INS** Amateur Electronic Supply® accepts trade-ins on new equipment purchases, the worth of which is determined by the electrical and physical condition of the item. Estimates are given assuming the trade-in is in good electrical and physical condition. If it is not, a deduction will be made.

To facilitate a trade-in, the customer can choose one of the following: (A) Purchase the new item(s), send in the trade for evaluation, and have the trade-in amount refunded or credited. (B) Send in the trade and have the order held until the trade-in amount is determined.

When shipping trade-ins for evaluation, use a sturdy carton (double boxing is recommended) and plenty of packing material (see pg. 143). Ship PREPAID & FULLY INSURED. Do not use Bus or Parcel Post. Collect shipments will not be accepted.

AES® assumes no responsibility for damage in transit or for filing of damage claims. Canadians, inquire locally about taxes and/or customs charges before releasing your shipment.

**Canadians Note:** Returned equipment not originally manufactured in the U.S. will be subject to valuation and custom charges, plus broker's fees. Check customs before shipping anything to us, including new equipment for warranty repair. We will not accept any shipments from outside of the U.S. unless all fees are paid in advance.

**BIDS & PURCHASE ORDERS** AES® accepts written and signed Purchase Orders from companies, military, schools, colleges, universities and federal, state, county and city Government agencies.

We welcome the chance to bid on your requirements and search the Internet daily for requests from all Government agencies. We are registered with FACNET and accept Government I.M.P.A.C.® charge cards. Net terms available to Government agencies, schools, and companies highly rated in Dunn & Bradstreet.

For more info, contact Paul Szczerbinski, W9KHO (pauls@aesham.com) at AES® Milwaukee. Toll Free: 1-800-558-0411 or Fax: 414-358-3337

## AMATEUR ELECTRONIC SUPPLY® LLC

5710 W. Good Hope Road Milwaukee, WI 53223 • 414-358-0333 • Fax 414-358-3337 • Service 414-358-4087

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Fax 440-585-1024  
wickliffe@aesham.com

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407-894-3238  
1-800-327-1917  
Fax 407-894-7553  
orlando@aesham.com

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### STORE HOURS

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9am to 5:30pm  
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9am to 3pm

Over 42 Yrs in Amateur Radio

Internet [www.aesham.com](http://www.aesham.com)

E-mail [help@aesham.com](mailto:help@aesham.com)

Toll Free 1-800-558-0411

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OF ORDER**

**SHIPPING  
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\$100.01 to \$500.00 .....	<b>\$9.95</b>
\$500.01 to \$1,499.99 .....	<b>\$14.95</b>
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*Flat Rate Does Not Apply To Drop Shipments*

Flat Rate Advantage – No Penalty for Number of Cartons or Weight!

**EXCEPTIONS TO RATES ABOVE**

Other UPS methods (Red, Blue & Orange) and any USPS methods are charged at Regular Rates without any credit for UPS ground rates. CODs are not accepted for these faster methods.

Shipments to APO/FPO & Puerto Rico are via Priority Mail. Orders exceeding UPS or USPS weight, size or value limits will be shipped via Truck or Air Freight collect. Shipping charges taxable in WI, FL & NV.

Please see **Policies Page** for complete information.

**NOTE:** Tracking numbers for out-bound shipments are gladly given. Call our local number, **414-358-0333**, and ask for tracking number service.

# World's Largest Ham Radio Inventory... including accessories

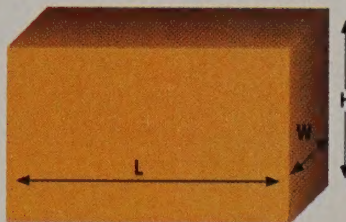
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## Importance of Proper Packing



### Packing

When returning heavy, delicate, and expensive equipment, it must be carefully packed in order to avoid damage caused by normal transportation dynamics. In other words, if you put your FT-1000, TS-850 or IC-751 in a box with little or no packing beneath it, chances are it will sustain some damage. When contents of packages are damaged, claims will be paid only if the carton and packing meet standards set in the International Safe Transit Association Procedure 1 and 1-A. These standards simply state that cartons and packing should provide reasonable protection to their contents. Ideally, contents should be suspended in the center of the carton by the packing material, no less than three inches on all sides for heavy items. For items heavier than 20 pounds, three inches of foam or crumpled paper should be used instead of polystyrene edge protectors.



### Include Information

When you send your well-packed parcel to AES for repair, return or trade-in, be sure to include a letter inside the package. Do not reply on information written or taped on the outside of the carton. This information can be destroyed by moisture or abrasion. In the letter, put your call, name, address, phone and reason for return. You may also want to include your e-mail address and times you can be reached.

$$\frac{L \times W \times H}{194} = \text{Dimensional Weight}$$

### Dim Weight

When calculating the cost of air shipments, whether Fed-Ex, UPS or other carrier, remember that they use dimensional weight. Dim weights are used to insure adequate revenues per cubic foot of cargo plane space. The formula used to calculate dimensional weight is: L x W x H divided by 194. This means a 12" x 13" x 16" box that weighs six pounds will be sent at the twelve pound rate when an air service is used.



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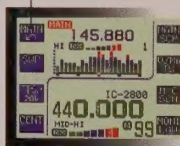
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